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THE FIVE-YEAR AGRICULTURAL DEVELOPMENT PLAN FOR THE YEARS 1966/67 - 1970/71

Chapter I

AIMS, PRINCIPLES AND MAIN ASPECTS OF THE PLAN

1. Introduction

The present five-year plan for promoting agricultural production and developing rural areas during the period 1/4/1966 - 31/3/1971 has been drawn up by the Agriculture and Settlement-Planning and Development Center, with the advisory help of the experts of the Agricultural Production and Extension Services of the Ministry of Agriculture and the Production and Marketing Boards, and in cooperation with the District Offices and the Regional Planning Sections. The proposed plan was studied and confirmed by the Planning Authority, which is headed by the Minister of Agriculture, at its meetings which took place on the 10th and the 17th of February, the 24th of March, the 14th of April the 11th and the 25th of August 1966.

2. The Aims of Planning

The general objective of the plan is to determine the principal targets for agricultural and rural development in Israel and to set the guidelines for their attainment. The plan constitutes a guiding framework and a source of information for the institutions concerned with agricultural and rural development. The specific aims of planning are thus as follows:

a. To provide a general forecast for agricultural and rural development in Israel during the period 1966/67 - 1970/71.

b. To serve as a guideline for determining agricultural policy in the fields of production, marketing, prices and credit.

c. To serve as a gudeline for determining the policy of land settlement and the development of the agricultural sector of the economy.

d. To determine the framework and the requirements for developing the resources and systems of water supply for agriculture.

e. To provide guidelines and data for the planning, setting up and development of rural centers, as well as regional and country-wide services and enterprises related to agriculture.

f. To provide long-range basic data, and to draw up perspective plans of ecological regions, so as to make it possible for agricultural settlements and for their planners to direct their development, within the framework of the overall plan and the policy trends that derive thereof.

3. The Scope of the Plan and the Stages of Its Preparation

a. The plan comprises the following fundamental parts:

1) A Comprehensive Development Plan for Agricultural Branches

This part includes a description of the trends of development and the scope of the various branches of agriculture in the years covered by the plan. It also includes a forecast of the agricultural side of foreign trade and an estimate of the total income of the agricultural sector.

2) The Price Policy - Investments and Financing

This part presents the principles for the price policy and credit in agriculture, the application of which is a condition for attaining the goals set for the plan. It also includes estimates of the demand for both investment capital and working capital in agriculture.

3) Detailed Agricultural Plan

This plan was prepared according to regional and sectorial divisions and includes the production plans and income derived from agriculture.

4) The Plan for Rural-Regional Development

This plan sets in detail the guidelines for the setting up and development of rural centers, regional enterprises and rural institutions which are necessary for the advancement and stabilization of the rural community, and for the improvement of the marketing and production system.

b. The period set for the plan is five years. This period is sufficiently long for most of the branches of agriculture, as the effect of the immediate decisions to be made in the course of planning will find expression within the planning period itself. As for the branches where the effect of the decisions is spread over a number of years, as in the case of orchards, a longer-range planning will be required. Accordingly, the planting schemes included in this plan have been tested against a background of their expected effect over a period of 10 years. The influence of the decisions to be implemented in the later stages of the planning period has not been tested, as it must be re-examined with the passage of time and the accumulation of know-how. According to this approach, the Planning Center expects to draw up once every two years a new plan which will make possible the continued adjustment between the technological, economic and other changes on the one hand and the planning aims and policy trends on the other.

c. The plan was drawn up in a number of main stages.

In the first stage, basic data were gathered, forecasts were prepared and various economic investications were carried out. Within this framework were prepared the forecasts of production factors, the forecasts for export and local consumption, the prices forecast together with the forecast for technological development. The principal economic investigations included: Examination of the "Dollar rate" of outputs and inputs that are tradeable in the world market, examining the profitability of processing agricultural produce for export, a comparative study of alternative production plans, etc.

In the light of the data and forecasts obtained, a preliminary plan was drawn up. It was confirmed by the Minister of Agriculture, and used as a basis for a more detailed work according to cross-sections of regions and agricultural branches. The draft proposals of the detailed agricultural plan, as well as the preliminary plan for rural-regional development, were prepared in cooperation with the regional and the district offices.

The draft proposal of the comprehensive development plan for the various branches of agriculture was drawn up in the planning committees whose members include directors of production and marketing boards and the directors of the relevant divisions of the Agricultural Production and Extension Services. The draft proposals concerning the principles of the price policy, as well as the principles of investment and financing, were worked out together in the course of many discussions at the economic directorate of the Ministry of Agriculture. At the final stage, the various proposals were submitted to the Planning Authority and they were amended in accordance with the conclusions reached in the course of its meetings.

4. Basic Assumptions

The economic background comprised the forecasts, the assumptions and the guiding principles of the Economic Planning Authority, as expressed in the Plan for the Development of the National Economy for the years 1965-1970.*)

The general objectives of the national plan are the following: ensuring the continuation of the rapid growth of the national product; narrowing the gap in the balance of foreign trade in all that concerns products and services; effecting a considerable rise in the level of education, and increasing the proportion of the population, living in the Negev and the Galilee regions.

According to the forecast, the total population will increase at a rate of 95,000 persons annually, and the national product - at a rate of 9.5% per year. A considerable decrease is expected in the scope of capital import into Israel. In order to attain the goals of the program, it will be necessary to increase national savings, raise the efficiency of the production system by promoting competition and fostering the process of liberalization, and to introduce structural changes aimed at channeling the resources towards producing for export.

It was assumed that the place of agriculture and its fundamental functions in the national economy would not undergo any changes during the period covered by the plan. Accordingly, the policy of subsidizing agriculture will be continued, with some possible changes which are likely to occur in its scope and structure — changes which are aimed at raising the efficiency and increasing the contribution of agriculture to the national economy. It has also been assumed that price development in the economy is to be in the direction of promoting agricultural export.

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*) See: Economic Planning Authority (1964). Draft Proposal for the Development of the National Economy for the Years 1965 - 1969 (first draft), State of Israel, the Prime Minister's Office, Jerusalem.

5. Forecast of Production Factors and Technological Development

a. Land

Forecasts concerning land for agricultural use are based on the existing statistical data. There have been no significant changes in this field in comparison with the forecasts submitted in the previous plan. Owing to the urbanization process, a certain reduction in agricultural area will take place in the coastal region. On the other hand, the land added as a result of soil reclamation will be extremely small. Considerable fluctuations in the area of cultivated land are brought about the annual fluctuations in rainfall.

It has been assumed that the year 1970/71 will be an average one as far as rainfall is concerned.

The physical changes envisaged for the cultivated areas are set forth in Table A-1.

TABLE A-1 PHYSICAL AREA OF CULTIVATED LAND IN THE YEARS COVERED BY THE PLAN (in thousands of dunams)

Year	Dryland farming	Irrigated farming	Total
1965	2,628.9	1,461.4	4,090.3
1966/67	2,535.9	1,530.9	4,066.8
1970/71	2,459.3	1,631.7	4,091.0
The increase (%) in the year 1970/71 as compared to 1965	- 6.5%	+ 11.7%	-

b. Water

The forecast of the amount of water that will be placed at the disposal of agriculture during the years covered by the plan is based on data provided by Tahal and the Water Authority. (See Table A-1.2). According to the forecast set forth in detail in Table A-2, there will be an increase of 15 million cubic meters (water quotas) to the net supply of water for agriculture in the year 1966/67, as compared to 1965.

Some additional 10 million m^3 are to be attributed to the increased consumption brought about by the drought conditions that prevailed in the winter of 1965/66. For the period 1966/67 - 1970/71 this increase will amount to 10 million m^3

TABLE A-2 WATER SUPPLY TO AGRICULTURE (millions of m^3)
IN THE YEARS 1965/66, 1966/67, 1970/71

Year	Fresh water					Sewage water	Saline water
	Net Supply		Wastage	Leaching	Gross Supply		
	quotas	Use					
1965/66	980	965	29	-	994	6.8	82.5
1966/67	995	1,007	35	-	1,042	7.7	82.5
1970/71	1,035	1,035	41	35	1,111	10.0	85.0
The increase (%) in the year 1970/71 as compared to 1965/66	+ 5.6	+ 7.3	+41.4	-	+11.8	+47.1	+3.0

All the water increment will come from conventional sources, as the desalination plant is not expected to go into operation in the years covered by the plan. However, this increment is based on the assumption that desalinated water will probably be obtained in the late seventies. The envisaged quantities of water, which appear in Table A-2, are for years of average rainfall. Fluctuations in annual rainfall will of course call for adequate modifications in the water supply. The net water supply stands for the total quantity of water shown by the water meters of the consumers, whereas the gross supply is the quantity of water supplied at the sources. Wastage is caused by leaks in the supply network and by incorrect recording of consumption by the water meters.

TABLE A-1.2

THE QUANTITY OF WATER ALLOCATED FOR AGRICULTURE IN 1970/71

According to the plan prepared by Tahal for the development of water resources in the years 1965-1980, the total water output in Israel in 1970 will be about 1400 million cubic meters, assuming that the development of water resources till 1970 will take place at the rate planned.

Out of this amount, 1035 million m^3 will be allocated for agriculture, i.e., an increase of 55 million m^3 to the actual quota of 1965/66.

Following below is the water balance-sheet envisaged for the year 1970/71:

Total output		1400	million m^3
Less 4% wastage		56	" "
Net total		1344	" "
Thereof for industry	62		" "
" for urban consumption (Jewish population)	182		" "
" for domestic consumption (Arab population)	11		" "
Total urban, domestic and industrial consumption		255	" "
General reserve		19	" "
Gross balance for agriculture		1070	" "
Thereof reserve for salt leaching		35	" "
Net balance for agriculture		1035	" "

According to these data, the quantities of water that will be at the disposal of agriculture in the coming years will be as follows:

Amount of water allocated for the year	1965/66	980	million m^3
" " " envisaged " " "	1966/67	995	" "
" " " " " " "	1967/68	1005	" "
" " " " " " "	1968/69	1015	" "
" " " " " " "	1969/70	1025	" "
" " " " " " "	1970/71	1035	" "

The forecast of allocating 1035 m^3 for agriculture in 1970/71 is based on the assumption that during the period 1970-1980, some 120 million m^3 will be added from unconventional sources, and that in addition to the full utilization of the existing water resources, including the purification of sewage water and the storage of surface runoff, in accordance with the plan for the development of water resources, 1965-1980.

The fulfillment of this condition will make it possible to provide an additional quantity of water to the ever-increasing consumption of water by the developing industry and the urban population, without adversely affecting agricultural development.

It has not been taken into consideration in this plan to use a quantity of water greater than 1035 million m^3, which could be made possible through depleting of groundwater reserves, as the aim is to retain a certain flexibility in determining the exact date of setting into operation the water desalination plant.

Although the operation of the National Water Carrier brought about an improvement of the hydrological conditions and an increase of water supply, a certain deterioration has occurred in the quality of the water supplied to agriculture. According to former decisions of the Planning Authority, the salinity of the water in the irrigation systems connected with the Carrier will be 250 mlg. of Cl per liter in the region south of the Yarkon river and up to 170 mlg in the regions that lie to the north of the Yarkon. These standards are likely to change as a result of the findings of the salinity research team which has been set up by the Ministry of Agriculture.

In order to prevent a harmful accumulation of salts in the citrus areas, a quantity of 35 million m^3 has been taken into consideration for leaching purposes. This water is intended for the consumers who, as a result of the changes that will take place in water supply, will irrigate their fields with water of an inferior quality, and that will lead to a dangerous accumulation of salts in the soil or in the growing tissue of the plants.

c. Capital

It has been assumed that the amount of capital available for investment in agriculture will not constitute a rigid limitation to its development. In other words, all the capital that will be required for agriculture will be placed at its disposal, provided that the price of the capital will be paid in full. This assumption is based on the forecast of the savings from the income accrued in agriculture, the forecast of the public funds that will be placed at the disposal of agriculture, and the fact that the agricultural producers have a free access to the market of private capital. An entirely different situation exists in relation to the development of water resources, the financing of which is based on public funds alone. Here the pace of development is determined by the envisaged amount of the public funds that will be placed at the disposal of the water economy for the duration of the plan. However, it is worthwhile to point out that the pace of development of the agricultural branches as well as the structure of the individual farms are also dependent on the amount of public funds (which are usually provided under more favourable conditions than the capital provided by the private market) and on the way of using them. Accordingly, the policy of financing serves as a main lever in directing the agricultural development.

The principles underlying this policy are set forth in the chapter on price policy, investments and financing. It has also been assumed that no significant changes will take place in the interest rate system.

d. Labor

An entirely elastic supply, similar to that of capital, has been assumed for labor. This assumption means that labor will not be a limitation to the various branches of agriculture, provided, of course, that these branches are profitable and capable of paying the prevalent labor wages. The scope of employment in agriculture will thus be determined by the demand of the various branches of agriculture for labor at the wages envisaged. The forecasts of the Economic Planning Authority show that a continual rise is expected in real wages.

The structural changes required for the national economy are likely to bring about a certain degree of unemployment. Such developments will curtial the settlers' non-agricultural employment, and the main changes in the scope of agricultural employment will affect hired labor, which today forms about one third of all the manpower employed in agriculture.

e. The Forecast for Technological Development

The plan that was published in May, 1964, set the estimated rate of annual increase in agricultural production - which will result from technological development alone - at about 2.5% - 3.5%. This rate seems to have continued in 1964 and 1965. It would be difficult to estimate the contribution of technology to the increase of output in the future, but this will certainly continue. (For a detailed discussion see section 8, c.).

At the meetings held in the Planning Committees crop estimates and production norms were prepared for the years 1966/67 and 1970/71. After these estimates had been studied in the light of the data of agricultural statistics for the previous years, production norms were set, and these were used as data for working out the plan.

6. Consumption Forecast

a. The Forecast of Local Consumption *)

The main factors influencing the volume of demand are: size of population, disposable per capita income, and prices. For all products, except plantations, it has been assumed that no changes will take place in the relative prices. The consumption of these products has been estimated in the light of the population and income forecasts of the Economic Planning Authority. According to these assumptions, the natural yearly rate of growth will be 1.5%, and the net immigration balance - 50 thousand persons yearly. The average annual rate of increase of the per capita disposable income will be 5%, and the annual rate of increase in consumption expenses (for all goods and services) will be 5% per capital for the years 1966/67 - 1968/69 and 4% for the years 1969/70 - 1970/71. The increase of the population, dispasable income and per capital consumption are set forth in detail in Table A-3.

TABLE A-3 PRESENT POPULATION, DISPOSABLE PER CAPITA INCOME AND PER CAPITA EXPENDITURE FOR THE YEARS 1965/66, 1966/67 AND 1970/71

Year	Present population (thousands)	Per capita disposable income, 1965 prices (IL)	Per capita consumption expenses, 1965 prices (IL)
1965	2,548	3,083	2,707
1966/67	2,690	3,318	2,914
1970/71	3,065	4,033	3,459
Increase (%) in 1970/71 as compared in 1965	+20.3%	+30.8%	+27.8%

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*) Dr. S. Pohoryles: "Consumption Forecast for Agricultural Products in Israel for the Years 1966/67 and 1970/71". Agriculture and Settlement-Planning and Development Center, Tel-Aviv, Hakirya, June 1965 (inter-departmental memorandum).

The forecast of the quantities to be consumed has been based on the elasticity of demand, as estimated by the Bank of Israel. The estimates are in turn based on consumption and expenditure data gathered in the course of a sample survey covering 1,016 families of wage-earners and salaried workers[*)].

It may be pointed out that in a number of cases the assumption concerning the constancy of price relationships is not accurate enough. Changes in international prices, technological devlopments, changes in trade and taxation policies and other developments in supply and demand may bring about changes in relative prices and in the structure of consumption. In the consumption forecast, these developments have not been expressed in relation to the majority of products.

For fruits, the envisages scope of production has been determined according to the following: the age composition of the existing orchard trees, the expected changes in this composition and the expected yields. Accordingly, an attempt has been made at estimating the prices of fruits for the five-year period, in the light of the expected quantities and the increase in demand that will result from population growth and the increase in disposable per capita income. For this purpose we have used estimates of price and income elasticities which were obtained in the research studies carried out by the Agriculture and Settlement-Planning and Development Center[**)]. According to the forecast, an average drop of about 15% in fruit prices (except citrus) will take place in 1970, as compared to the average prices for the years 1962-1964.

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*) Central Bureau of Statistics (1962). Family Survey 1959/60. Special editions No. 123.

**) Agriculture and Settlement-Planning and Development Center (1965).
  a) Forecast of Fruit Prices for the Period 1964-1971.
  b) Proposed Plan for Plantations (not including citrus) for the years 1966/67 - 1970/71. Hakirya, Tel-Aviv.

There have been considerable difficulties in working out the forecast of the demand for processed fruit and vegetables. The deductions arrived at are based on the assumption that the increase in the demand for processed fruit and vegetables will be proportional to the increase in total production of the particular branch.

The Export Forecast and the Conditions of Demand in foreign markets.

The forecast of the quantities of citrus and avocados that will actually be exported during the period covered by the plan is based on the expected volume of forecast production, excluding the quantities of fruit which is not fit for export, and/or the quantity that will be channeled into the local market.

The volume of export of the other products may, as a matter of fact, be changed, and therefore it serves as an object for planning and not for forcasting. The same considerations apply to the additional planting areas of citrus and avocados. In order to make the right decisions concerning the desired level of these variables, it was necessary to make forecasts of the state of the foreign markets on the one hand, and the conditions of production in Israel on the other. Actually, a detailed price forcast was prepared for citrus alone, a branch where a considerable price drop is expected on foreign markets. For the other products there are more general estimates. The forecasts and the estimates are both set forth in detail in the discussion of the various branches.

7. Objectives of the Plan

The principal objectives of the plan are:

1) Stabilizing and promoting the farmers' incomes with a view to narrowing the gap of income per employed person between agriculture and the other sectors of the economy.

The aim of the policy of production, prices and credit is to bring about an increase in the aggregate income accrued from agriculture. This policy will lead to a yearly increase of 5%-6% in the real income of the worker employed in agriculture. The stability and promotion of incomes must be ensured both as an end in itself and as an auxiliary condition for the increase and adoption of new technoligies on the farm.

In conformity with the other objectives of the plan, measures will be taken to narrow the income gap among the various agricultural producers through the advancement of the lower-income groups at a faster rate than that of the relatively higher ones.

2) Efficient Utilization of Resources

Efficient utilization of resources means selecting a regional and country-wide production plan which takes into consideration consumers' preferences, the potentialities of foreing trade as well as the local and the regional conditions of production. In addition, raising the efficiency calls for structural changes, such as enlarging the agricultural production unit (especially in the moshav), promoting regional cooperation, specialization, etc.

3) Land Settlement

Additional agricultural settlement will in the future be set up only in the regions that have supreme priority for security and political considerations on the one hand, and that would enable, in the long run, a reasonable economic existence, on the other. Accordingly, additional settlements will be set up, during the years covered by the plan, in the regions of Central Galilee, Kurazin and Arava, as well as in other regions in which it will be both mandatory and possible to do so.

4) Rural-Regional Development

Rural and regional Cooperation will be promoted in production enterprises, services, and the handling of agricultural produce - sorting, packing, storage, processing and cold-storage. The plants will be set up withing the framework of the region, by the farmers, and they will be owned by them, with a view to raising the efficiency of the services increasing the farmers' income, stablilizing and expanding the rural population.

5) Promoting Agricultural Export

Expanding agricultural export is a primary condition for promoting and consolidating agriculture and for raising its efficiency. According to the limitations that have been pointed out, and which will be discussed in detail in the sections that deal with the various branches, priority will be given in the policy of production, prices, investment and financing to the promotion of branches and products which have economic prospects for export.

6) Ensuring Regular Supply

This target will be attained as a result of achieving the other targets that have already been described in detail.

The fulfillment of these objectives must be taken up as a gradual process which avoids extreme structural changes and takes into consideration the institutional and political limitations imposed upon agricultural policy.

B. Highlights of the Comprehensive Development Plan for the Various Branches of Agriculture

a. Guidelines and Approach to Planning

The rate of planned development of the various branches of agriculture is determined by the following guidelines:

1) With regard to products tradeable on the world market, the development of those branches should be promoted in which the effective dollar exchange rate (for exports or for import substitutes) is relatively low; at the same time the development must be slowed down of the branches in which the dollar rate of exchange is high. In this connection, some preference must be given to products which serve as import substitutes. As for the products whose export from Israel exerts an influence on prices on foreign markets, calculations concerning this rate must be based on marginal revenue. As a criterion for planning, an effective dollar rate of exchange of IL. 4.0 - IL. 4.50 per 1 dollar has been chosen as the dividing line between branches which are worthy of being promoted and others whose development must be slowed down. Export crops which are at a preliminary stage of development, and whose processes of production and marketing are likely to gain in efficiency with the passage of time and the expansion of their scope of production, call for a faster pace of development than that to be deduced from their present dollar rate of exchange.

2) For non-tradeable products, the pace of expansion of their production will be adjusted to the rate of increase in demand, at prices which are equal to their long-term marginal costs of production. For the purposes of planning, these costs will be considered equal to the average cost of production in the "extensive, marginal" regions. The calculated production costs will also include the input value of such factors of production as are not interchangeable in the market.

3) For non-tradeable products whose production is given to considerable yearly fluctuations (such as vegetables), planned production will be slightly higher than the expected consumption, in order to ensure a regular supply of the product.

4) The rate of development of the various branches must be such as would make possible the structural changes required in agriculture. According

to the planning method that was adopted, first was determined the scope of production of the non-tradeable branches, or of those, whose area is determined by the existing conditions (such as citrus groves). Additional planting was planned with a view to equalizing the fruit prices to the producer in 1970/71 with the marginal costs of production. As for vegetables, it was assumed that the average price in the last three years will reflect the marginal cost. The scope of the remaining crops, especially the tradeable field crops, was determined in the light of the remaining water balances, their dollar rate of exchange and the readiness of the farmers to grow these crops, as they were expressed in the detailed plan.

b. Output

Production structure and the value of planned output are set forth in detail in Table A-4. The value of gross agricultural production will reach IL. 1,720.2 million at forecast prices in 1970/71, which is an increase of about 28.6% as compared to 1965. Actually, the increase in production will be characteristic of all branches. The quantitative increase in fruit production will be the greatest - 62.8% in citrus fruits and 38.6% in other orchard fruits. However, owing to the expected drop in prices, the increase in the value of production of citrus fruits will amount to 23.8% and that of the remaining orchards 32.9% only. Considerable expansion is also expected for vegetable growing. The greater part of this wxpansion will be brought about by promoting tomato growing for industry and expanding export crops. The yield of the cattle branch will be considerably increased, 30.3%, during the period covered by the plan. The rate of expansion of the poultry branch will be comparatively lower - 21.4%, i.e. lower than the mean rate of growth of agriculture as a whole. The increase in the output of irrigated field crops will be relatively high, owing mainly to the increase in yields. As compared to 1965, a year of abundant rainfall, only a limited increase is expected for dryland crops. The physical output of fisheries is expected to rise slightly, despite the decrease in the overall pond area. Especially outstanding will be the expansion of production in

TABLE A-4

AGRICULTURAL PRODUCTION AND ITS VAL
(BASED ON PROJEC

Branches	Cultivated Area in dunams or number of heads			
	Unit	1964/65	1970/71	Ch
Vegetables, Potatoes, Melons and Water Melons	000 dunams	299.2	329.0	+
Industrial Crops and irrigated grain crops	"	349.4	464.0	+
Horticulture (flowers and bulbs)	"	1.9	3.9	+
Total - Citrus	"	452.0	465.0	+
Thereof: Fruit bearing Citrus	"	315.9	447.8	+
Young Citrus	"	136.1	17.2	-
Total - Other fruit plantations	"	390.1	430.3	+
Thereof: Fruit bearing plantations	"	312.1	358.6	+
Young plantations	"	78.0	71.7	-
Fish ponds	"	61.0	55.0	
Irrigated and unirrigated fodder crops	"	517.1	629.7	+
Dry farming	"	1865.6	1645.1	-
Land in preparation	"	25.0	-	
Cattle - Milk	000 cows	69.4	81.4	+
Cattle - meat	-	-	-	
Sheep - milk	000 lives	142.9	164.5	+
Sheep - meat	-	-	-	
Goats - milk	000 mothers	114.0	117.5	+
Goats - meat	-	-	-	
Poultry - Table eggs	000 hens	6800	5986	+
Poultry - hatching eggs	"		1365	
Poultry - meat	"	40000	44827	+
Beehives	units	66000	66000	
Other meat	mothers	3200	2452	-
Sea - fish	-	-	-	
Other fish	-	-	-	
Sundries *)	-	-	-	
Other areas	000 dunams	173.0	153.0	-
The difference between the figures of the Agricultural Planning Center and the Central Bureau of Statistics	"	35.6	-	
Grand Total	000 dunams	4170.0	4175.0	+

VALUE IN 1970/1 AS COMPARED WITH 1964/65
OJECTED PRICES)

	Output				Value in IL. 000		
Changes in %	Unit	1964/65	1970/71	Changes in %	1964/65	1970/71	Changes in %
+ 9.9	000 tons	514.9	752.5	+ 46.1	129405	181347	+ 40.1
+ 32.8	-	-	-	-	93672	135009	+ 44.1
+ 105.3	-	-	-	-	6769	22052	+ 225.8
+ 2.9	000 tons	-	-	-	-	-	-
+ 41.8	"	878.3	1430.0	+ 62.8	227925	282154	+ 23.8
- 87.4	"	-	-	-	-	-	-
+ 10.3	"	-	-	-	-	-	-
+ 14.9	"	249.4	345.6	+ 38.6	160182	212836	+ 32.9
- 8.1	"	-	-	-	-	-	-
9.8	"	10.3	11.6	+ 12.5	20563	23165	+ 12.7
+ 21.8	000 feed units	180.4	228.4	+ 26.4	50942	65567	+ 28.7
- 11.8	-	-	-	-	78413	81430	+ 3.8
-	-	-	-	-	-	-	-
+ 17.3	mil. liters	339.0	432.2	+ 27.5	119193	152132	+ 27.6
-	tons	30850	42430	+ 37.5	87041	116528	+ 33.9
+ 15.2	mil. liters	17.7	24.8	+ 40.1	10449	14753	+ 41.2
-	tons	3800	6388	+ 68.1	10601	17879	+ 68.7
+ 3.1	mil. liters	27.1	30.3	+ 11.8	6364	7161	+ 12.5
-	tons	3250	3441	+ 5.9	7645	8098	+ 5.9
+ 8.1	nil. units	1193.4	1293.2	+ 8.4	101299	109925	+ 8.5
	"	102.6	122.9	+ 19.8	25102	30107	+ 19.9
+ 12.1	tons	74000	97172	+ 31.3	135883	178408	+ 31.3
-	"	1520	1320	- 13.2	4179	3629	- 13.2
- 23.4	"	4800	3678	- 23.4	13350	10229	- 23.4
-	"	7738	16000	+ 77.8	11789	23636	+ 77.8
-	"	1261			1447		
-	-	-	-	-	35133	44209	+ 24.8
- 11.6	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
+ 0.1	-	-	-	-	1337346	1720154	+ 28.6

TABLE A-5

THE USE OF RESOURCES IN AGRICULTURE IN 1970/1 AS COMPARED WITH 1964/5

Branches	Cultivated Area - 000 dunams			Water - million m^3			Labour - 000 work days		
	1964/5	1970/1	Changes in %	1964/5	1970/1	Changes in %	1964/5	1970/1	Changes in %
Vegetables, potatoes, melons etc.	299.3	329.0	+ 9.9	109.9	110.7	+ 7.3	4123.2	3710.3	- 10.0
Industrial crops and irrigated grain crops	349.4	464.0	+ 32.8	153.4	182.4	+ 18.9	1067.0	821.4	- 23.0
Horticulture (flowers and bulbs)	1.9	3.9	+ 105.3	1.5	3.5	+ 133.3	104.9	280.1	+ 167.0
Thereof: Area under cover	0.2	0.8	-	0.2	1.2	+ 500.0	29.4	123.0	+ 318.4
Total Citrus	452.0	465.0	+ 2.9	323.1	366.0	+ 13.3	4732.9	5011.8	+ 5.9
Thereof: fruit bearing citrus	315.9	447.8	+ 41.8	252.7	358.2	+ 41.7	4011.3	4925.8	+ 22.8
young citrus	136.1	17.2	- 87.4	70.4	7.8	- 89.0	721.6	86.0	- 88.1
Total other fruit plantations	390.1	430.3	+ 10.3	147.9	171.9	+ 16.2	4179.2	3888.4	- 7.0
Thereof: fruit bearing plantations	312.1	358.6	+ 14.9	127.8	151.4	+ 18.5	3819.8	3547.6	- 7.1
young fruit plantations	78.0	71.7	- 8.1	20.1	20.5	+ 2.0	359.4	340.8	- 5.2
Fish Ponds	61.0	55.0	- 9.8	50.0	25.0	- 50.0	178.5	161.0	- 9.8
Fodder Crops, irrigated & unirrigated	517.1	629.7	+ 21.8	122.4	121.5	- 0.7	1027.8	754.3	- 26.6
Dry farming	1865.6	1645.1	- 11.8	8.0	8.0	-	1318.1	1174.8	- 10.9
Land in preparation	25.0	-	-	-	-	-	-	-	-
Total cattle	-	-	-	-	-	-	1841.2	1970.6	+ 7.0
Thereof: cattle - milk	-	-	-	-	-	-	1760.6	1869.1	+ 6.2
cattle - meat	-	-	-	-	-	-	80.6	101.5	+ 25.9
Total Sheep and goats	-	-	-	-	-	-	971.0	1039.6	+ 7.1
Thereof: Sheep	-	-	-	-	-	-	451.9	498.3	+ 10.3
Goats	-	-	-	-	-	-	519.1	541.3	+ 4.3
Poultry	-	-	-	-	-	-	1627.1	1461.0	- 10.2
Beehives	-	-	-	-	-	-	102.3	102.3	-
Other meat	-	-	-	-	-	-	19.2	14.7	- 23.4
Farmyards	-	-	-	56.0	56.0	-	-	-	-
Others (including farmyards)	173.0	153.0	- 11.6	-	-	-	-	-	-
The difference between the figures of the Agricultural Planing Center and the Central Bureau of Statistics (mainly in fruit plantations)	35.0	-	-	-	-	-	-	-	-
Grand total	4170.0	4175.0	+ 0.1	972.0	1045.0	+ 7.5	21292.4	20386.9	- 4.2
Thereof: Sweet water	-	-	-	965.5	1035.0	+ 7.2	-	-	-
Sewage water	-	-	-	6.7	10.0	+ 48.0	-	-	-

horticulture, which will be mainly due to increased exports and the widespread adoption of production in hothouses and under plastic covers.

It may be pointed out, however, that were it not for the expected drop in fruit and citrus prices, the increase in the overall value of production would be greater. The value of procuction in 1970/71, at the prices of 1965*) will be greater by 37.4% than that of 1965, whereas, calculated at forecast prices, the rise will be only 28.6%**). The expected rate of increase of real output will thus amount to 6.0% annually.

As compared to the previous plan, the present plan shows higher rates of growth in vegetable growing, industrial crops, horticulture and cattle raising, and lower rates of growth in orchards, dryland farming, fisheries and poultry husbandry. No significant changes are envisaged for the remaining farming branches in the planned rates of growth.

c. Utilization of Resources and Technological Progress

The utilization of land, water and labor in the various farming branches in 1970/71, as compared to 1965, is set forth in detail in Table A-5. Outstanding is the increase in the amout of water that will be allocated for the ripening orchards. As a result, water consumption in the orchards and citrus groves will constitute 51.5% of the entire water consumption in agriculture. There will also be a sizable increase in the amounts of water that will be allocated to industrial crops, field crops with auxiliary irrigation and to horticulture (flowers & bulbs). However,

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*) See Appendix 1-A: (appears in the Hebrew edition only).
"Estimate of the Value of Agricultural Production, for the Various Branches of Agriculture, for the years 1965, 1966/67 and 1970/71, at 1965 prices."

**) See Appendix 2-A: (appears in the Hebrew edition only).
"Estimate of the Value of Agricultural Production, for the Various Branches of Agriculture, for the years 1965, 1966/67 and 1970/71, at forecast prices."

there will be a decrease in water consumption in fish pouds and young orchards. It may be pointed out in this connection that, in comparison with 1965, a 0.7% decrease is envisaged for 1970/71 in the quantity of water that will be allocated to home-grown forage crops, that is, there will be a considerable decrease in the water consumption per cow. This reduction will be brought about mainly by the general rise in the yield of forage crops, by the transition to crops that give relatively higher yields per unit of water, and by increasing the proportion of concentrates in cattle feed. Generally speaking, there will be an increase in the value of the agricultural product per cubic meter of water, mainly owing to the expected rise in yields and the changes in the composition of crops. The need for farm labor will diminish during the period covered by the plan at a rate of 0.78% per year approximately. This will in part bring about structural changes in the employment of farm owners, but it will mainly result in reducing the number of wage-earners employed in agriculture. As the expected rate of increase in the number of persons employed in the entire national economy is 4-5% annually, a drop is envisaged in the percentage of the persons employed in agriculture out of the entire labor force. The total reduction in the use of labor for direct production in agriculture is 4.2%, despite the sizable increase in agricultural production, owing to rises in both yield and productivity.

The main addition of labor will take place in fruit-bearing citrus groves, in horticulture (flowers and bulbs) and in the raising of cattle, sheep and goats. On the other hand, there will be a drop in the need for labor for all field crops (including vegetables), young plantations, fish pouds and poultry husbandry. In the previous plan there was taken into consideration a 1.5% rise in the use of labor in agriculture annually. The change that appears in the present plan is due to a more optimistic forecast for productivity in agriculture. The present plan is based, of course, on the prospect of full employment in the economy. The occurrence of prolonged period of unemployment is likely to bring about a slow-down in the farmers' adoption to other forms of employment and a change in the expected tendency towards reducing the manpower in agriculture.

The net value of investment (after deduction of discard value) in agriculture and in irrigation in the period covered by the plan amount to IL. 945.4 million of this sum, IL. 409.7 million will be invested in the various farming branches (not including soil reclamation and afforestation). The total capital invested (after deduction of discard value) in these branches will in 1970/71 amount to IL. 3,223.2 million, which is a rise of 23.3% as compared to 1965.

An analysis of the factors contributing to the increase of output *) shows that the increase of input alone, without any technological improvements, would bring about an annual increase of only about 2.44% in real output, whereas the technological improvements and the rise in yield bring about an annual rate of increase of about 3.56%, as compared to the annual 2.1% rise in productivity which was envisaged in the previous plan. About 59% of the annual increase stems, therefore, from the rise in productivity. In comparison with an annual 2.5% - 3.5% increase in output, as a result of technological improvements in the past, the increase envisaged for the planning period seems attainable.

Following is a detailed calculation of the contribution of the various factors to the rise in real output during the period covered by the plan:

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*) The above analysis has been made according to the method described by Dr. P. Zussman in his article: "Development Plan for Farming Branches for the years 1964/65 - 1968/69," Economics Quarterly No. 43, September 1964. See Table A - 6. (Tel-Aviv).

TABLE A-6 THE FACTORS CONTRIBUTING TO THE INCREASE IN REAL OUTPUT IN AGRICULTURE DURING THE PERIOD 1965 - 1970/71

Input factors	Annual average rate of increase (%)	Elasticity of production	Contribution of production factor to annual increase (%)
Labor	-0.78	0.245	-0.19
Land and water (standard dunam)	+1.11	0.093	+0.10
Capital	+3.88	0.209	+0.81
Input (purchased and intermediate)	+3.80	0.453	+1.72
Total contribution of Physical input			+2.44
Unaccounted for increase			+3.56
Agricultural output	+6.0		

d. Income in Agriculture

This rise in the value of agricultural product will be accompanied by a parallel rise in the farmers' incomes. At the forecast prices, the net value of agricultural product, at producers prices, will in 1970/1 amount to about IL. 899 million — a rise of about 26.7% as compared to 1965. The relative rise in the net agricultural product is equal to the rise in production value as a result of the assumption that the ratio "input (purchased and intermediate products)/ total output" will not change during the period covered by the plan. In recent years (1961-1965), despite the considerable variations in the price relationships of various products, the ratio "purchased input/total output" remained unchanged at about 32%. Owing to the expected increase in own capital, there will be a relatively slight increase in the payment of interest.

Purchased input in 1970/71 is estimated at about the same level. Intermediate input, however, has been calculated according to the data of production utilization for 1970/71 (see Appendix 8)*). Owing to the expected increase in own capital, only a relatively slight increase is to be expected in interest payments. On the assumption that there will be a slight decrease in the employment of hired labor, and that the number of agricultural settlers will not change, the overall envisaged increase in the farmers' income during the planning period will amount to about 39.6%, i.e., a yearly increase of 6.25% in the farmer's income.

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*) appears in the Hebrew edition only.

TABLE A-7 CURRENT ACCOUNT OF AGRICULTURE FOR THE YEARS 1965 AND 1970/71 (in million IL.)

	Years		Change (%)
	1965*)	1970/71	
1. Value of agricultural production at producer's prices	1,341.3	***) 1,715.1	+ 27.9
2. Output of investment assets	69.9	46.6	- 33.3
3. Total agricultural output	1,411.2	1,761.7	+ 24.8
4. Less: intermediate input	154.9	180.0	+ 16.2
5. Agricultural output at producer's prices	1,256.3	1,581.7	+ 25.9
6. Less: purchased input	451.0	564.0	+ 25.1
7. Gross agricultural product at producer's prices	805.3	1,017.7	+ 26.4
8. Less: depreciation	95.2	118.3	+ 24.3
9. Net agricultural product, at producer's prices = total income from agriculture	710.1	899.4	+ 26.7
10. Drought compensations	0.2	-	-
11. Total income from agriculture	710.3	899.4	+ 26.6
12. Less: wages for employed workers	160.8	148.5	- 7.6
13. Less: interest and rent	45.9	48.0	+ 4.6
14. Income of farmers from agriculture	503.6	702.9	+ 39.6
Increase in farmers income		199.3	+ 39.6
Changes in agricultural labor			-
Increase in the farmers income during the period of the plan			+ 39.6
Annual increase in the farmer's income			+ 6.25

*) 1965 data according to the 1965 report of the Bank of Israel, Jerusalem, May 1966.

**) The number of farm owners in the existing agricultural settlements will probably decrease to a certain, limited extent. However, this decrease will be almost completely offset by the setting up of new agricultural settlements.

***) The total value of production, according to Appendix 2A, amounts to IL. 1,720.2 million. This sum is to be reduced by IL. 5.1 million, which is the value of the changes in livestock included in the item "output of investment assets."

e. Foreign Trade in Agriculture *)

The value of agricultural export of fresh agricultural produce is about one fifth of the total value of agricultural production - about 19% in 1965 and about 21% in the forecast for 1970/71.

The export of both fresh and processed agricultural produce constituted about 23% of the value of agricultural production in 1965. The agricultural export, both fresh and processed, amounted in 1965 to 26% of the total Israel exports, and it even constituted over 35% of the overall added value of export.

Exports

The trend of development in the export of fresh agricultural produce showed an increase of 38% during the period 1961-65. The characteristics of this trend were quantity and price cycles which resulted from damage caused by natural factors on the one hand and a relative reduction in exports of high-dollar price[**] products (such as poultry products) on the other. In the forecast for 1970/71, there will be an increase in importance of crops that have a relatively low dollar price,[**] such as avocado fruit, flowers, strawberry, peanuts and up-grading breeding material.

TABLE A-8 DEVELOPMENT OF EXPORTS (in Millions of Dollars) IN THE MAIN BRANCHES OF AGRICULTURE IN THE YEARS 1963-65, AND THE FORECAST FOR 1970/71

Branches	Years			
	1963	1964	1965	1970/71
Total exports	90.0	67.1	84.3	117.9
Citrus fruit	75.4	53.7	68.2	81.5
Total (excluding citrus fruit)	14.6	13.4	16.1	35.8
Poultry	6.0	6.0	8.3	8.8
Field crops and seeds	4.1	3.3	3.3	9.9
Fruits	2.3	2.9	2.7	4.7
Vegetables, potatoes, melons	1.9	0.9	1.3	6.6
Horticulture (flowers and bulbs)	0.1	0.1	0.3	4.1
Various	0.2	0.2	0.2	1.7

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*) A detailed discussion on this subject appears in chapter 15: Foreign Trade in Agriculture. (Appears in the Hebrew edition only).

**) Dollar price in this context means: The exchange rate of the Dollar in the production of the products concerned.

The Dollar Exchange Rates and the Development of Exports

At present, there are different levels of support for the various export products. However, the basic assumption that underlies the exports forecast is that in 1970/71 there will be a uniform support level for all agricultural exports, excluding citrus fruit. Such a uniform rate of support is likely to promote the export of products whose effective dollar exchange rate in export, which is an index of their relative advantage, is relatively low. The advantage of uniform support will be maintained as long as improvements are introduced in the methods of production, transportation and marketing.

Since 1963 there has been an increased activity in gaining new markets through the setting up of additional sales branches and the stepped up distribution in such additional countries as Germany, France and Switzerland of vegetables, fruits and flowers, which have a relatively low dollar exchange rate and a relatively great potential for growth.

The improvement in transportation depends upon the increase in the volume of exports. However, specific transportation problems - such as refrigeration, ventilation in maritime transportation - as well as the cost problem in air freight, call for a more thorough research and development in this subject. Already next season a study will be carried out on the methods of transportation in refrigerated containers and also the possibility of combination of sea transportation of vegetables, fruits and flowers with that of citrus fruits. Considerable developments have taken place all over the world in reducing air freight charges through the introduction of special freight planes and the combination of air freight with passanger service - methods so far not yet used in Israel.

Principal Export Branches

Citrus

1) Oranges. The predominant problem in the citrus growing branch is the danger of a decreased average price for Israel oranges owing to the

greater increase in supply from the Mediterranean region as compared to the increase in demand in European markets. The agricultural policy of the EEC is liable to intensify the general danger of a drop in citrus prices and to aggravate this danger as far as Israel is concerned, as this policy aims at protecting Italian oranges by means of imposing high external custom duties and levies according to the reference price system. A decline in demand for oranges in the EEC will make it necessary to channel greater quantities of this crop to other European markets and will thus lead to a considerable drop in prices there. In addition, this will have an especially harmful effect on Israel, the greater part of whose oranges is exported to these markets.

The increase in the demand for oranges in the United Kingdom - according to market research - seems to depend upon a stepped-up advertising campaign and a more intensive introduction of the fresh product into the markets, while waging an unremitting "war" on the processed product which is threatening to oust fresh citrus fruit from the market. A partial solution to this problem may be a lengthening of the citrus export season from Israel. However, while early fruit faces a keen competition with high-quality fruit from Spain, the late fruit also faces a decline in price caused by the competition with the South African fruit and the increased quantities of Valencia available for export. Experiments which have been carried out on keeping fresh fruit in cold storage in order to prolong the export period have proved effective as far as the keeping quality of fruit concerned, but not from the economic point of view.

Another possibility of solving the problems just mentioned would be the introduction of the fruit to potential markets, such as those of Eastern Europe, Canada, the United States and the Far East.

2) Grapefruit. There is also expected a drop in prices for grapefruits, this time as a result of the fast increase in Israel exports. It is therefore necessary to start an intensive advertising campaign in

order to minimize the extent of the expected price decline. Another difficulty, as in the case of oranges, is the increasing competition of grapefruit products, especially those imported from the United States.

Vegetables and Fruits

Vegetables are limited to export at times when they are scarce on European markets. At present there is no limitation on the quantities that can be exported, and more knowledge must be acquired on the methods of vegetable growing, transportation and early varieties, with a continual follow-up of parallel developments in markets and regions of potential competition.

As far as fruits are concerned, export covers three main crops: avocados, bananas and grapes. The avocados have good foreign markets, and new ones must be found for them as this fruit is a relatively new product. Banana exports, which are at this stage a regulator of surpluses from the home market, are shipped mainly to countries of the Mediterranean Basin. The transportation of grapes, similar to that of avocados, poses a number of difficulties which are yet to be solved.

The export of other sub-tropical fruits, such as mangoes, persimmon and anona is now at the stage of shipping experimental consignments and exploring the market potentialities.

Horticulture (flowers and bulbs)

Among the branches of horticulture there has been considerable progress in the export of gladioli and roses, as well as various varieties of iris, gerberas and anemones. The urgent problem is the acquisition of know-how and its dissemination, together with finding suitable regions and cultivation methods. Household and ornamental plants are another export potential which is now at its preliminary stage.

Livestock and Poultry

The promotion of livestock exports centers mainly on breeding material for up-grading purposes and includes: heifers, ewe-lambs and up-grading material of hens and turkeys. The main importing countries are: Iran (heifers), Italy, Greece, Yugoslavia, and others (poultry up-grading material).

Agricultural Exports in the light of the Changing Conditions of International Trade

Agricultural export from Israel is liable to be affected by changes in the import policy of the European economic blocs, though it is still difficult to make a quantitative assessment of the effect of these changes on the realization of the export forecast.

a. The European Economic Community

Owing to the implementation of external tariffs, reference prices and equalizing levies, the following branches may be adversely affected:

Oranges. 1. Customs duty will increase to 20% with the possible addition of equalizing levies in accordance with reference prices. 2. The extension of advantages to our competitors will encourage them to increase their plantations which will aggravate our position in the long run.

Eggs. Table eggs have already been adversely affected by the sluice-gate prices, which make imports possible into the EEC for only a short period in the autumn. There is a similar regulation for hatching eggs which will probably be put into effect in the near future.

Flowers. In preparation is a regulation for setting quality standards. The setting of minimum prices for import is expected in the coming few years.

Processed Products. These products have already been affected by the high custom duties and the discrimination that is now being practiced against us and in favor of our competitors. They will be even more adversely affected as a result of setting minimum prices.

b. EFTA

The apricultural policy of EFTA is not as harmful as that of the EEC. In the U.K., however, certain products are preferred to others as far as custom duties are concerned, such as tomato products. The possible harm that may be caused to Israel if the U.K. and other EFTA countries join the EEC has not yet been investigated.

9. The Highlights of the Price Policy, Investments and Financing

The Price Policy*)

a. Principles and Guidlines of the Price Policy

The price policy influences both the allocation of resources between agriculture and the other sectors of the economy and their allocation for the various activities in agriculture. The price policy also has has a decisive influence on income. The general aim of the price policy will be to improve the allocation of resources in the economy, and at the same time to improve the income of the farmers in accordance with the aims of the plan. An adequate price policy will make possible a gradual diminuation of production norms in agriculture. The price changes will be graded, and they will be made according to the following principles:

(1) The differences between the effective dollar prices of the various inputs and outputs, will be gradually diminished.

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*) A detailed discussion on this subject appears in Chapter 16: A Proposed Price Policy. (appears in the Hebrew edition only).

(2) The general level of the prices of inputs and outputs will be set at a rate that will contribute to the promotion of agricultural income, with a view to narrowing the gap between the average income of the farmers and that of the persons employed in the other branches of the economy.

(3) The changes in the prices of outputs will be based in part on the changes in the prices of inputs used for producing the various products.

(4) The decrease of subsidies should gradually get to such a level where the prices to the consumer are related to each other as are prices to the farmer, with the addition of the processing and marketing expenses. The ensurance of such price relationships will bring about a better adjustment between consumers' preferences on one hand and the marginal substitution rate in production on the other.

(5) For the products in which no international trade exists, even not potentially (such as most vegetables for the local market), the prices will be set at a slightly higher level than that of equilibrium, in order to ensure abundant supply. In some branches, the prices to the farmer will be ensured by means of a system of target-prices ensured-prices and minimum-prices.

(6) According to the foregoing guidelines, care must be taken to avoid such price changes as would drastically affect a large number of agricultural producers.

(7) In order to ensure a regular supply of perishable products to the local market, it will be mandatory to retain the present arrangement of the equalization funds, which in some branches are jointly provided by the government and the production and marketing Boards.

(8) It should be emphasised that price and subsidies policy be fixed at a definite date at the beginning of the year in order to ensure the influence on the change of composition of production.

b. The Development of Prices in the Years Covered by the Plan.

The implementation of the proposed price policy, the expected changes in supply and demand, and the general development in the price relationships towards the promotion of exports - all these will bring about the following changes in the relative price system:

(1) As a result of the increased supply of citrus fruit from the Mediterranean region, there will be a drop in C.I.F. prices. This drop will be partially balanced out by the improvement in the rate of exchange for citrus fruit.

(2) Following the increase in the local production of deciduous fruits, a drop is expected in the prices of these fruits for both the producer and the consumer.

(3) The reduction of subsidies for poultry and dairy products will result in a rise in the prices of these products to the consumer.

(4) The reduction of the gap in the effective dollar prices will improve the prices to the producer of grain crops and some of the irrigated field crops. There will also be a slight rise in the price of home-grown fodder crops, and this will be counterbalanced by an adequate rise in the prices of livestock products.

(5) A general improvement will take place in producer's prices of products intended for export (excluding citrus fruits).

(6) There will be a seasonal differentiation in the prices of table eggs.

Investments and Finance Policy*)

a. Principles and Guidelines for the Investments and Finance Policy

The allocation of public funds - the development fund and the agricultural settlement fund - serves as a central lever for achieving the objectives of the plan. The guidelines for the investments and finance policy which is proposed in this plan are as follows:

(1) The allocation of public funds will be based on the objectives and the principles of the plan; it will be carried out according to clear-cut criteria known to all concerned.

(2) First priority will be given to the promotion of export crops and import substitutes which are now at the preliminary stages of their development, or which - owing to the existing price relationships - are being developed at an undesirably slow pace. The branches included in this category will be determined according to the guidelines set forth in section 8 a.

(3) Second priority for the allocation of these funds will be given to financing the necessary structural changes that will have to be carried out in the "weak" farms, at the level of the individual farm, the village and the region.

(4) The high priority level will, of course, also include the financing of investments in water-saving installations and devices.

(5) The public funds will also be allocated for investments in drainage, soil conservation, surface runoff prevention, as well as the construction of similar infra-structural projects.

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*) A detailed discussion on this subject appears in chapter 17 "Proposal for investment on Finance Policy". (Appears in the Hebrew edition only).

(6) The terms of credit will serve as aids for attaining the objectives of the plan in all that concerns the distribution of income among the various regions.

(7) As this subject is still being examined, it is not recommended at this stage to introduce any modifications in the present way of utilizing public funds for the purpose of improving the farm financing structure.

(8) The financing of current production will be based on the requirement of working capital for each and every crop. There will be differential rates of providing working capital for the various crops in accordance with the targets set for the development of the various branches and farm groups. In each case these rates will be determined according to uniform criteria.

b. Investments in Agriculture in the Years 1966/67 - 1970/71

(1) Estimate of Investments*) (Table A-9)

The overall gross investment in agriculture and irrigation will, in the years covered by the plan, amount to about IL. 1,401 million. Of this sum about IL. 775 million will be invested in agricultural settlements and some IL. 626 million in public development projects including sea fisheries and water projects.

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*) **Definitions:**

"Net investment"	- investment intended for adding further production assets to those that already exist.
"Discard value"	- value of obsolete assets which must be substitued for new ones in order to maintain a given production level.
"Gross investment"	- net investment plus investment for replacement of the discard value.

Total net investment in agriculture and irrigation will amount to about IL.945 million, of which some IL.410 million will be directly invested in agricultural settlements while the balance, amounting to about IL.535 million, will be invested in public development projects.

A typical development in investments has been the decreasing rate of net investments in agricultural farms. This has been due to a general slow-down in the development pace of the various farming branches in general and of orchards and citrus groves in particular.

The total gross investments in the dairy branch in the five years of the plan will amount to about IL.130 million. Of this sum about IL.72 million will be invested in family dairy farms with a view to concentrating the production of these farms into larger production units and to advance them technologically. The total gross investments in farm mechanization during the five years of the plan will amount to about IL.135 million, whereas the net investment will amount to IL.30 million only. While the gross annual investment in mechanization will amount to about IL.26 million, the net annual investment will decrease and the annual discard value will increase. This is due to the slow-down in the pace of development of farming branches on the one hand, and the obsolescence of farm machinery with the consequent annual rise of the discard value on the other hand.

c. Financing the Investments in Agriculture in the Years 1966/67 - 1970/71

The sources for the financing the investments in agriculture are as follows:

(1) The savings of the farm owners.

(2) The net increase in long-term public credit.

(3) The net increase in short-term public directed credit.

(4) Other sources.

Owing to the increase in disposable income in agriculture and the rise in allocations for depreciation, a rise is expected in the gross savings of the farm owners.

According to these forecasts, the increase in public credit will thus be maintained, but the increase in loan repayment will - in the course of the years covered by the plan - bring about a slowdown in the growth of agriculture's debts to the public sector. The short-term directed credit will thus increase in accordance with the pace of growth of working capital.

The "centralized credit" method has been in use for the past few years. The farms included within this credit network receive all their financing from one bank, in accordance with a farm plan prepared in advance. In the short experience that has been gathered in using this method, its effectiveness has been proved, and its application is expected to be extended in the future.

It may therefore be concluded that the expansion of agricultural credit, including monies for narrowing the financing gap and the increase in gross savings on the one hand, and the curtailment of annual investments on the other, a great improvement is to be expected in the financing of agriculture.

Considering the expected developments, and provided that during the period covered by the plan the funds that will be placed at the disposal of the farmers will be similar to those allocated in previous years, it would seem that the farmers will be able to draw upon

TABLE A-9

ESTIMATE OF GROSS AND NET INVESTMENT DURING THE PERIOD 1966/67 - 1970/71

(Thousand IL, at 1965 prices)

Investment / Year	1966/67		1967/68		1968/69		1969/70		1970/71		Total in 5 year plan	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
A. In agricultural settlements												
Fruit Plantation (including citrus)	33 215	31 759	28 653	27 128	24 440	22 670	21 650	19 725	18 680	16 694	126 638	117 976
Cattle	35 639	15 458	27 743	11 792	25 111	10 675	20 509	9 576	20 580	9 498	129 582	56 999
Poultry	19 250	6 178	24 013	7 729	28 053	7 729	28 403	7 729	28 745	7 729	128 464	37 094
Sheep and goats	4 324	2 324	4 422	2 322	4 522	2 322	4 622	2 322	4 722	2 322	22 612	11 612
Beehives	1 036	-	1 146	-	1 253	-	1 530	-	1 189	-	6 154	-
Fish ponds	570	-	530	-	490	-	450	-	410	-	2 450	-
Mechanization in agriculture *)	27 000	8 200	27 000	6 900	27 000	5 800	27 000	5 000	27 000	4 500	135 000	30 400
Irrigation networks	20 376	9 912	15 680	6 991	16 002	6 991	17 700	6 991	19 331	6 991	89 089	37 876
Increase in working capital	10 986	10 986	10 563	10 563	10 094	10 094	9 049	9 049	8 544	8 544	49 236	49 236
Crops under plastic cover	5 000	3 000	5 000	3 000	5 000	3 000	5 000	3 000	5 000	3 000	25 000	15 000
Drainage and Soil conservation on farms	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	21 000	21 000
Sundries	8 000	6 500	8 000	6 500	8 000	6 500	8 000	6 500	8 000	6 500	40 000	32 500
Total	169 596	98 517	156 950	87 125	154 165	79 981	148 113	74 092	146 401	69 978	775 225	409 693
B. In public development enterprises (including water installations)												
Sea fisheries	6 102	3 947	6 102	3 947	6 102	3 947	6 102	3 947	6 102	3 947	30 510	19 735
Regional and national plants (mainly processing plants)	27 200	19 200	27 700	19 200	28 200	19 200	28 700	19 200	29 200	19 200	141 000	96 000
Water installations **)	65 811	62 500	69 334	62 500	79 334	62 500	64 577	62 500	67 500	62 500	346 556	312 500
Afforestation and land reclamation	21 490	21 490	21 490	21 490	21 490	21 490	21 490	21 490	21 490	21 490	107 450	107 450
Total	120 603	107 137	124 626	107 137	135 126	107 137	120 869	107 137	124 292	107 137	625 516	535 685
Grand Total (A + B)	290 199	205 654	281 576	194 262	289 291	187 118	268 982	181 229	270 693	177 115	1 400 741	945 378

*) Does not include equipment required directly in livestock branches.

**) Based on the data of the Economic Section of the Water Authority.

sufficient funds that will enable then to realize the necessary investments in agriculture. Of all the means that will be placed at their disposal, a considerable portion will no doubt be channeled into non-agricultural investments, (dwelling units, industry, financial assets, etc.). Within the investments in the financial assets is included the decrease in liabilities to creditors which do not belong to the public sector. It may thus be said that, in general, there will be an increase both in the absolute and in the relative share of own capital in the overall capital invested in agriculture. This trend is a continuation of those trends that have already been mentioned in the previous plan.

10. Salient Points of the Detailed Regional Plan*)

a. Guidelines and the Planning Approach

The detailed agricultural plan deals with the distribution of agricultural production and the allocation of the additional means of production to the various regions of the country and according to the various forms of agricultural settlement. This plan has been drawn up in accordance with the preliminary comprehensive plan and in the light of the following guidelines:

(1) The Degree of Detail of the Plan

(a) The plan will be published in detail, at a level of sub-ecological regions, and separately for every form of agricultural settlement, distinguishing between the old and new established settlements.

(b) The plan for the individual farms will be drawn up in the regions by the regional planners. A detailed plan for individual farms, based on individual examinations and on consultations with every settlement, will be drawn up only for such farms that are included in the framework of centralized financing, or are condidates for inclusion in the scheme in the near future.

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*) This section is a condensation of the "Five-Year Plan for the Development of Agriculture for the Years 1966/67 - 1970/71, Part B. The Detailed Regional Plan."

(2) General Principles for Inter-regional Allocation

(a) The overall scope of inter-regional allocation will be such that the income from an existing farming unit, in each settlement, will be advanced as far as possible at a rate higher than the average rate for agriculture, if the income from one agricultural unit in the reference year has been lower than the average income per unit, - and at a rate lower than the average one, if the income has been higher than the average income per unit during the reference period. It is not necessary that full equality be attained in the incomes per unit. For this purpose the "existing agricultural unit" will be defined according to the employment in each agricultural settlement, with the aid of the findings of the "Census", owing to the fact that these criteria have been determined for the purpose of water allocation alone. The number of units will be the same as that found in the survey of the units entitled to water quotas. As income will be considered the total revenue less the payments for purchased inputs and capital services. The prices of all inputs, including capital and water, will be calculated according to actual prices and not according to their alternative value to the farm. In the calculations of the total revenue will be considered all the sources of income in the development of which there has been some form of public participation, including integrated citrus groves in the newly established moshavim.

(b) Under no circumstances shall the allocated production quota for the region exceed the limit which the region is capable of utilizing efficiently. Thus, for instance, the additional milk quotas for the newly established moshavim that lag behind in their production will not exceed the ability of these moshavim to utilize these quotas, even though for other considerations they are entitled to a larger quota.

(c) The detailed allocation of the means of production and the production quotas of various products will be done in the light of the relative advantages of each sub-region. In the allocation will be considered the need for developing large production units. This objective will be realized by concentrating the additional production quotas; in other words, it is recommended to aim at attaining the target income of the farms by concentrating development on a limited number of farming branches.

(3) Water and Soil Allocation

(a) The allocation of water quotas for the Huleh farms in the year 1970/71 will be based on the decisions of the Planning Authority in its meeting on January 14, 1965.

(b) The allocation of water in 1970/71 for the farms in the Jordan Valley will include the quantities of water that are due to the agricultural settlements in accordance with their full quotas.

(c) The allocation of additional quantities of water to the other regions of the country will be determined according to the "relative gap" (the quantity of water supplied at present as compared to the full quota according to the criteria,that have been determined) for the purpose of complementing the quota due to the farms in accordance with the "Census" of farming units that are entitled to a water quota and in conformity with the decisions of the government and the Planning authority on this subject.

(d) The water allocation for the "unplanned" sector will be based on the present water consumption plus the water required for the growing plantations of monocultural farms, as will be determined by the Water Commissioner.

(e) There will be only slight changes in the allocation of existing land.

4) **The Allocation of Public Funds**

The plan for the allocation of public funds will be based on the principles of the investments and financing policy set forth in Section 9.

(5) **The Allocation of Production Quotas for Various Products**

(a) The scope of production in the regions will be centrally determined only with regard to those products that are now being produced according to a given quota.

(b) The scope of production of the other products will be determined by the farms themselves in consultation with the regional planners. In order to help them make the appropriate decisions, the farm managers will have at their disposal a price forecast for all agricultural products. This forecast will be based on the principles of the price policy already discussed. Special adjustments will be made by the Center, only after the regional plans have been collected.

(c) The allocation of additional plantation areas will be based on the assumption that each farm will be entitled to renew its plantation, only after uproeting the old one. The renewed plantation areas will not exceed that of the uprooted orchards.

(d) The allocation of production quotas to the old villages, the big farms and to other private farms will be similar to the allocation used for the old established settlements, provided that the farms continue to exist as agricultural settlements.

b. **The Use of Resources and the Composition of Production in the Various Regions and Forms of Agricultural Settlements.**

1) **The Use of Resources**

The countrywide limitation of water (1,040 million cu.m. of fresh water, including the Arava) and the criteria used for its allocation (utits census, according to the recommendations of the Horin and Chazani Committees) have given rise to a situation wherein it will be possible, till the year 1970/71, to supply the water-deficient farms with a water supplement of only up to 70% of their full quotas, and the field crop farms up to 77%. A prerequisite for this condition is that all the farms that have at their disposal quantities of water in excess of their full quota should cut down their consumption, and that at the same time it would be technically possible to transfer the water thus released and to mix it with water of lower quality. Actually, the amount thus saved is 32 million cu.m., of which 24 mil. cu.m. in the Kinneroth Valley, 4 million cu.m. in the Huleh, and 4 million cu.m. in the Beisan Valley. This can be achieved by cutting down the area allocated for fish ponds (both owing to the need for adapting production to the needs and scope of marketing and the necessity of allocating water to the various farming branches according to economic principles), substituting the fresh water now used for fish ponds by drainage and saline water, and transferring the big farms belonging to "Yitzur vepituach Company" to the southern parts of the country. On the other hand, additional quantities of water will be allocated for the regions of Merom and Ma'aleh Hagalil (8 million cu.m.), the Jerusalem Corridor (10 million cu.m.), to the Lakhish and Negev agricultural settlements (28 million cu.m.) and to Arab villages (11 million).

In the cultivable physical area no outstanding changes will take place (an addition of 30,000 dunams), except for a certain increase in the regions of Merom and Ma'aleh hagalil, the Jerusalem Corridor and the Arava, mainly in the moshavim and the additional agricultural settlements. These changes result from the absolute addition of land through land reclamation and reparcelation, which are necessary in these regions, in order to provide land for irrigated crops to the agricultural settlements with insufficient land.

During the five years covered by the plan, irrigation networks for irrigated crops will be installed over 198,000 dunams, (143,000 for field crops and 55,000 for orchards), of which 50,000 dunams will be located in the Lakhish Area and in the Negev, 20,000 dunams in the Jerusalem Corridor, 16,000 dunams in Rehovot, 12,000 dunams in Hadera, 21,000 dunams in the Jezreel Valley and 16,000 in the Nazereth region. From the sectorial aspect, the irrigated area will be increased by 82,000 dunams in the Kibbutzim and moshavim shittufiim, 71,000 dunams in the moshavim, 24,000 dunams in the new settlements to be established, and 21,000 dunams in the Arab villages.

2) The composition of Production

Following is a brief survey of the main farming branches in regional and sectorial cross-sections:

The dairy branch has in the past few years lost its predominant position in the moshavim. In the coastal region there has been competition for land and water between the dairy branch and the citrus groves, under the influence of the good prices that the citrus fruits secured on foreign markets. In the moshavim that have heavy soils there has been a tendency towards developing large dairy farms which are run by a small number of farmers. This tendency towards concentrating dairy farming - the shift from small-herd dairy farming to the formation of groups of cattle keepers who have herds of eight or more cows - is becoming more pronounced. In this case, increasing the number of cattle in the herd depends upon getting higher yields and obtaining the investment capital required. It has been assumed that by the end of the five-year plan there will be 4,500-5,000 keepers of dairy cows in the moshavim.

Most of the kibbutzim and moshavim shitufiim aim at expanding their dairy farms owing to the profitability of this branch of farming and to the improvements that have been introduced in the feeding methods. There are, however, certain limiting factors to this tendency, the principal ones being the production quotas and the financing possibilities.

TABLE A-10

QUANTITY OF WATER; AREA SUITABLE FO
IN 1964/

Region	Quantity of sweet water (in mil.m^3)						Area Suitable for							
							Irrigated Area							
	Total excluding fish ponds		Fish ponds		Grand Total		Field Crops		Fruit Plantations		Fish Ponds		Total	
	64/65	70/71	64/5	70/1	64/65	70/71	64/65	70/71	64/65	70/71	64/5	70/1	64/65	70/7
Huleh	64.3	64.1	18.9	15.2	83.1	79.3	61.6	66.8	23.2	26.3	12.6	9.6	97.4	102
Merom Hagalil	10.6	16.6	5.4	4.5	16.0	21.1	6.3	9.5	11.4	16.1	4.0	3.2	21.7	28
Maaleh Hagalil	3.3	6.2	-	-	3.3	6.2	0.8	3.2	5.5	6.8	-	-	6.3	10
Nazareth	4.2	10.2	-	-	4.2	10.2	2.3	11.5	0.4	5.8	-	-	2.7	17
Acre	47.7	50.3	0.1	0.1	47.8	50.4	61.0	74.3	28.1	31.5	7.2	6.2	96.3	112
Kinorot Valley	64.6	58.2	23.0	5.7	87.6	63.9	21.8	27.1	19.4	21.4	4.8	4.3	46.0	52
Beth-Shaan Valley	51.4	47.6	-	-	51.4	47.6	49.6	51.6	9.3	9.7	13.8	14.5	72.7	75
Gilboa	15.3	16.1	-	-	15.3	16.1	13.4	16.3	5.1	5.3	4.2	4.4	22.7	26
Lower Gallilee	11.7	13.8	-	-	11.7	13.8	14.3	21.4	6.5	8.4	-	-	20.8	29
Valley of Yezrael	44.7	48.9	-	-	44.7	48.9	65.1	82.0	24.8	28.7	0.5	0.6	90.4	111
Hadera	137.3	143.3	-	-	137.3	143.3	118.8	123.4	105.9	113.3	10.6	10.6	235.3	247
Raanana	147.6	149.7	-	-	147.6	149.7	84.9	86.4	139.5	142.5	0.2	0.2	224.6	229
Rehovot	165.6	170.9	-	-	165.6	170.9	161.1	171.9	155.4	160.5	-	-	316.5	332
Jerusalem Corridor	20.8	31.1	-	-	20.8	31.1	19.5	35.4	21.2	26.1	-	-	40.7	61
Lackish	67.6	73.7	-	-	67.6	73.7	98.3	105.3	61.6	69.5	-	-	159.9	174
Negev	81.3	103.8	-	-	81.3	103.8	138.8	171.2	38.1	41.5	-	-	176.9	212
Arava	4.5	10.3	-	-	4.5	10.3	3.1	6.9	1.1	1.6	-	-	4.2	8
Not known	-	-	-	-	-	-	-	-	26.2	22.8	-	-	26.2	22
Grand Total	942.5	1014.8	47.4	25.5	989.9	1040.3	920.7	1064.2	682.7	737.8	57.9	53.6	1661.3	1855
Recently established settlements	367.3	435.3	11.4	8.4	378.7	443.7	493.2	577.8	214.4	251.1	15.3	14.0	722.9	842

Thereof: According to Types of Settlement

Old establishe communal settlements	364.5	380.5	46.1	24.2	410.8	404.7	361.0	434.5	164.7	178.7	53.8	49.1	579.5	662
Moshavim	311.6	349.2	0.5	0.5	312.1	349.7	404.6	447.5	208.5	236.7	1.9	1.8	615.0	686
Villages and private farms	210.8	210.5	0.8	0.8	211.6	211.3	75.4	79.9	261.0	261.9	1.5	1.5	337.9	343
Institutes and schools	38.9	33.5	-	-	38.9	33.5	61.2	54.6	14.8	15.8	0.7	0.7	76.7	71
New additional settlements	1.5	15.1	-	-	1.5	15.1	2.5	19.7	2.1	7.9	-	0.5	4.6	28
Arab villages	15.0	26.0	-	-	15.0	26.0	16.0	28.0	5.4	14.0	-	-	21.4	42
Not known	-	-	-	-	-	-	-	-	26.2	22.8	-	-	26.2	22

FOR CULTIVATION AND LIVESTOCK PRODUCE
64/65 - 1970/71

r Cultivation (in '000 dunams)									Cattle-Milk		Poultry Products (quotas)							
	Dry Farming						Total Area in '000 dunams		Milk in mil. liters		Table eggs (mil. units)		Hatching eggs, light & heavy breeds (mil. units)		Broiler meat in tons		Tur mea in to	
	Field-Crops		Fruit Plantations		Total													
/71	64/65	70/71	64/65	70/71	64/65	70/71	64/65	70/71	64/65	70/71	64/65	70/71	64/65	70/71	64/65	70/71	64/5	
02.7	46.8	41.3	1.3	1.3	48.1	42.6	145.5	145.4	9.9	12.7	13.0	15.4	1.9	3.4	1996	2251	81	
28.8	12.2	9.3	1.1	1.2	13.3	10.5	35.0	39.3	2.0	2.5	49.9	77.9	0.6	0.8	1012	2552	2	
10.0	0.7	0.3	0.5	0.5	1.2	0.8	7.5	10.8	-	-	34.5	69.4	-	-	646	2587	3	
17.3	207.5	190.7	43.8	45.7	251.3	236.4	254.0	253.7	-	-	-	-	-	-	-	-	-	
12.0	79.1	63.7	17.6	18.5	96.7	82.2	193.0	194.2	25.7	33.0	16.6	17.1	9.6	11.4	3685	3767	638	
52.8	30.3	28.7	-	-	30.3	28.7	76.3	81.5	11.6	15.0	11.9	11.9	3.3	3.4	1902	1902	7	
75.8	46.2	43.4	-	-	46.2	43.4	118.9	119.2	5.2	8.1	6.8	7.0	1.5	2.4	1246	1640	689	990
26.0	63.5	57.5	0.1	0.1	63.6	57.6	86.3	83.6	10.2	11.7	5.6	5.6	5.6	6.0	1223	1225	104	184
29.8	96.0	87.5	4.2	3.7	100.2	91.2	121.0	121.0	11.7	18.3	20.6	18.5	1.3	0.9	1135	1461	60	62
11.3	190.1	172.2	1.1	1.0	191.2	173.2	281.6	284.5	35.6	46.9	50.4	51.1	16.1	19.3	3607	4097	629	916
47.3	88.6	79.0	38.6	39.3	127.2	118.3	362.5	365.6	41.9	53.6	134.6	135.9	19.8	21.8	6612	7173	2067	2292
29.1	21.7	17.5	0.1	0.1	21.8	17.6	246.4	246.7	21.3	27.0	276.4	276.5	16.4	17.4	7350	7629	698	922
32.4	88.9	75.6	5.6	4.8	94.1	80.4	410.6	412.8	70.2	88.9	143.6	146.4	11.8	13.5	13103	13310	836	1298
61.5	53.2	40.2	1.3	0.9	54.5	41.1	95.2	102.6	4.9	7.1	102.0	132.7	4.8	7.3	6214	10495	424	1075
74.8	222.5	199.9	0.2	0.3	222.7	200.2	382.6	375.0	16.5	27.1	25.8	32.9	7.1	9.8	3068	3873	246	553
12.7	1138.4	1115.5	-	-	1138.4	1115.5	1315.3	1328.2	17.7	28.6	45.8	54.1	9.1	13.1	4323	4933	354	750
8.5	-	-	-	-	-	-	4.2	8.5	0.6	2.0	1.8	1.8	-	-	80	405	-	-
22.8	-	-	30.0	26.9	30.0	26.9	56.2	49.7	-	-	-	-	-	-	-	-	-	-
55.6	2385.7	2222.3	145.1	144.3	2530.8	2366.6	4192.1	4222.2	285.0	382.5	939.3	1054.2	108.9	130.5	57202	69300	6838	10000
42.9	734.8	672.8	8.3	7.2	743.1	680.0	1466.0	1522.9	145.3	208.3	453.0	568.2	23.5	31.1	31567	42811	2713	4981
62.3	831.2	744.2	2.6	2.1	833.8	746.3	1413.3	1408.6	121.5	161.6	116.6	111.5	74.6	93.8	23216	24589	3334	
86.0	389.1	339.5	8.1	6.9	397.2	346.4	1012.2	1032.4	153.2	207.9	671.2	786.7	27.2	29.7	28220	36623	3204	
43.3	209.0	195.6	18.0	18.3	227.0	213.9	564.9	557.2	6.8	8.4	147.7	151.6	6.4	6.3	5510	5635	272	
71.1	23.9	25.5	0.3	0.3	24.2	25.8	100.9	96.7	3.5	4.2	3.6	4.2	0.7	0.7	218	250	28	
28.1	-	6.9	-	-	-	6.9	4.6	35.2	-	0.4	-	-	-	-	-	2165	-	
42.0	932.5	910.6	86.1	89.8	1018.6	1000.4	1040.0	1042.4	-	-	0.2	0.2	-	-	38	38	-	
22.8	-	-	30.0	26.9	30.0	26.9	56.2	49.7	-	-	-	-	-	-	-	-	-	

TABLE A-11

FIELD - CROPS AND IRRIGATED FRUIT PLAN

(in '000 d

Region	Details on annual irrigated field crops																
	Vegetables Under Cover		Potatoes and Vegetables in the field		Bulbs and flowers		annual fodder crops		Sugar beet		Cotton		Ground-nuts		Winter and Summer grains		Total field
	64/5	70/1	64/65	70/71	64/5	70/1	64/65	70/71	64/5	70/1	64/65	70/71	64/5	70/1	64/65	70/71	64/65
Huleh	-	0.1	4.1	4.7	0.1	-	5.9	5.8	-	-	18.9	26.8	3.7	4.0	18.6	22.3	51.3
Merom Hagalil	-	-	0.3	1.5	-	-	0.2	0.1	-	-	2.0	3.9	-	-	2.1	1.9	4.5
Maaleh Hagalil	-	-	0.3	1.0	-	-	-	-	-	-	-	-	-	-	-	-	0.3
Nazareth	-	0.1	2.9	8.5	-	-	-	-	-	1.5	-	1.6	-	1.2	0.2	2.5	3.1
Acre	0.1	0.6	6.1	8.6	-	0.1	14.7	13.0	2.9	4.1	15.7	25.7	0.1	0.2	25.5	21.3	65.5
Kinorot Valley	-	0.3	5.6	7.5	0.1	0.1	3.9	4.0	-	-	2.2	2.7	-	-	6.0	6.6	17.8
Bet-Shaan Valley	-	0.6	5.6	6.4	-	-	1.5	1.6	3.0	3.7	6.3	8.7	0.1	0.1	27.3	25.9	43.7
Gilboa	-	-	1.4	1.3	-	-	3.5	3.8	0.8	0.8	4.2	8.2	-	-	2.1	0.6	12.1
Lower Galilee	0.1	0.1	3.8	4.7	-	-	4.2	5.5	0.5	0.7	1.5	4.7	-	-	5.6	5.9	15.9
Yezrael Valley	-	0.1	10.3	8.3	0.2	0.3	14.5	16.2	9.1	8.6	9.8	17.2	2.2	1.4	20.5	29.6	66.5
Hadera	0.7	1.8	26.9	25.8	0.2	0.3	23.2	24.0	3.2	3.5	26.6	34.6	6.7	6.8	21.8	18.9	109.3
Raanana	3.4	6.3	33.9	26.9	0.9	1.0	15.4	14.6	1.6	1.3	11.1	15.2	13.6	13.4	11.9	14.5	91.8
Rehovot	0.7	1.7	28.4	31.0	0.2	0.4	55.2	46.3	6.9	8.3	23.6	31.5	3.2	3.4	40.8	48.9	159.6
Jerusalem Corridor	-	0.1	4.4	9.5	-	-	1.5	2.6	-	-	4.5	9.3	-	0.1	1.8	6.2	12.2
Lackish	0.2	1.9	27.2	26.2	0.4	1.3	8.0	9.8	15.5	8.3	16.3	15.8	1.4	0.6	14.8	34.2	83.7
Negev	0.1	1.6	37.4	49.1	0.1	0.6	10.8	14.0	17.2	16.4	13.9	18.7	7.9	10.0	17.0	20.6	104.5
Arava	0.1	0.6	1.5	3.5	0.1	0.3	0.3	0.6	-	-	-	-	-	-	-	-	2.0
Not known	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	5.4	15.9	200.1	224.5	2.3	4.4	162.8	161.9	60.7	57.2	156.6	224.6	38.9	41.2	216.0	259.9	843.8
Thereof: Recently established settlements	1.4	8.0	122.1	133.3	0.7	2.3	100.4	101.5	42,9	36.6	61.5	88.4	17.9	16.9	90.1	125.0	437.4
Thereof: According to Types of Settlement																	
Old established communal settlements	0.9	2.1	30.9	38.1	0.7	1.2	35.7	40.7	25.4	26.3	126.2	175.4	7.1	6.6	108.1	116.9	335.3
Moshavim	2.1	8.4	144.6	119.0	1.2	2.5	119.2	113.3	31.0	23.3	11.2	23.5	15.3	12.5	67.6	100.6	362.4
Villages and private farms	2.2	4.5	37.4	35.4	0.3	0.5	3.6	3.4	2.4	2.5	9.9	10.5	9.2	10.1	17.1	17.7	82.8
Institutes & Schools	0.1	0.1	4.2	4.7	0.1	0.1	4.3	4.3	1.8	1.6	8.9	8.9	4.3	4,8	22.1	18.0	45.7
New additional settlements	-	0.1	-	7.7	-	0.1	-	0.2	-	0.6	-	2.7	-	2.2	-	2.9	-
Arab villages	0.1	0.7	13.0	19.6	-	-	-	-	0.1	2.9	0.4	3.6	3.0	5.0	1.1	3.8	17.6
Not known	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TATIONS IN 1964/65 - 1970/71
unams)

		Fruit Plantations																					
annual -crops		Citrus		Apples		Pears		Peaches		Apricots		Table Grapes		Wine Grapes		Avocades		Bananas		Others	
	70/71	64/65	70/71	64/5	70/1	64/5	70/1	64/5	70/1	64/5	70/1	64/5	70/1	64/5	70/1	64/5	70/1	64/5	70/1	64/5	70/1
5	63.7	4.9	4.9	13.3	14.6	1.7	1.9	0.2	0.2	-	-	0.3	0.3	0.3	0.9	0.3	0.4	0.3	0.4	1.9	2.7
5	7.4	1.3	1.3	3.5	5.8	1.5	2.0	1.5	1.7	-	0.1	2.0	1.7	0.6	2.0	-	-	-	-	1.0	1.5
3	1.0	0.2	0.1	1.3	1.5	0.6	0.6	1.3	1.5	0.5	0.6	0.6	0.3	-	0.3	-	-	-	-	1.0	1.9
1	15.3	0.1	0.1	-	-	-	0.1	-	-	-	-	-	-	-	5.0	-	-	-	-	0.3	0.6
5	73.6	12.5	12.8	1.5	1.6	1.6	2.4	0.2	0.2	0.2	0.2	0.8	0.4	-	0.2	2.2	4.0	6.9	6.4	2.2	3.3
8	21.3	4.1	4.1	0.2	0.1	0.2	0.8	-	-	0.1	0.1	3.6	3.2	-	1.2	0.1	0.2	8.9	9.0	2.2	2.7
7	46.9	4.8	4.9	-	-	-	-	-	-	-	0.1	1.4	1.2	-	0.2	-	-	-	-	3.1	3.3
1	14.6	3.4	3.4	-	-	0.5	0.7	-	-	-	-	0.3	0.3	-	-	-	-	-	-	0.9	0.9
9	21.9	3.3	3.4	0.3	0.5	0.4	0.9	0.1	0.1	0.5	0.6	0.6	0.6	0.3	0.3	-	-	-	-	1.0	2.0
.5	81.8	12.5	12.7	4.8	5.8	3.7	4.7	0.4	0.5	0.5	0.3	0.3	0.3	0.3	2.1	-	-	-	-	2.3	3.1
.3	115.7	74.9	77.5	2.7	2.8	0.7	0.9	1.1	1.1	1.3	1.4	5.4	5.4	8.7	9.7	2.5	3.6	4.8	5.4	3.8	5.5
.8	93.2	127.7	129.6	0.9	1.1	0.4	0.6	0.1	0.1	0.1	0.1	0.4	0.3	-	-	3.3	3.6	1.4	1.4	5.2	5.7
.6	172.3	123.1	125.0	1.3	1.3	0.6	1.1	0.5	0.5	1.1	1.1	3.6	3.7	17.6	18.4	0.9	1.1	0.5	0.5	6.2	7.8
.2	27.9	1.4	1.6	3.3	3.3	0.3	1.7	3.2	3.5	1.0	1.5	4.3	3.6	3.9	6.7	-	-	-	-	3.8	4.2
.7	98.1	36.4	36.7	1.0	1.1	0.8	1.7	0.3	0.3	2.8	3.2	2.5	2.6	1.9	7.5	0.1	0.1	0.1	-	15.7	16.3
.5	131.0	22.0	23.1	1.7	1.6	0.7	1.6	1.2	1.2	1.3	1.4	3.7	2.7	3.5	5.5	-	-	-	-	4.0	4.0
.0	4.9	-	-	-	-	-	-	-	-	-	-	0.1	0.3	-	-	-	-	-	-	1.0	1.3
-	-	20.0	20.1	-	-	0.2	0.2	-	-	-	-	2.7	0.2	0.1	-	-	-	-	-	3.2	2.3
3.8	990.6	452.5	461.3	35.8	40.3	13.9	21.9	10.1	10.9	9.4	10.8	32.5	27.1	37.2	60.0	9.4	13.0	22.9	23.1	58.8	69.5
7.4	523.5	132.8	137.5	15.2	18.7	5.2	11.3	6.9	7.6	4.0	5.3	15.2	12.7	10.3	26.2	3.0	4.4	8.8	9.2	13.0	18.2
5.3	407.7	80.6	83.5	21.9	23.6	8.8	12.3	2.9	3.0	2.1	2.2	7.4	6.0	1.6	2.0	4.9	7.5	20.6	21.0	13.8	17.6
2.4	403.3	152.9	157.6	7.9	10.0	3.7	7.3	4.7	5.0	2.5	3.3	12.4	10.6	9.0	23.8	2.0	2.6	0.8	0.6	12.6	15.9
82.8	85.2	6.7	185.1	5.4	5.8	0.9	0.9	2.0	2.0	4.3	4.3	9.4	9.4	26.4	27.0	2.0	2.3	0.7	0.8	23.1	24.3
45.7	42.4	7.7	7.8	0.4	0.4	0.1	0.2	0.1	0.1	-	-	0.4	0.4	0.1	0.1	0.5	0.6	0.2	0.1	5.3	6.2
-	16.5	1.3	2.6	0.1	0.4	0.2	0.8	0.3	0.7	0.1	0.4	-	0.1	-	1.5	-	-	-	-	0.1	1.4
17.6	35.5	3.3	4.6	0.1	0.1	-	0.2	0.1	0.1	0.4	0.6	0.2	0.4	-	5.6	-	-	0.6	0.6	0.7	1.8
-	-	20.0	20.1	-	-	0.2	0.2	-	-	-	-	2.7	0.2	0.1	-	-	-	-	-	3.2	2.3

As a result of the gap that exists between the demand for milk production quotas on the one hand and marketing quotas that have been set by the Planning Authority at 380 million liters in 1970/71 on the other - it has been suggested that the additional milk quotas be distributed among all the producers according to varying rates of expansion, a considerable portion of the milk being reserved for the farms that in the opinion of the Planning Authority should be promoted as dairy farms. The Plan contains the suggestion to add, as compared to 1965, 97 million liters of milk, of which: 24 million liters in the Lakhish area and the Negev, 19 million liters in the Rehovot region, 11.5 million liters in the Hedera region and 11 million liters in Jezreel Valley. To kibbutzim and moshavim shitufiim an addition of 40 million liters (+32%) has been suggested and to the moshavin - 55 million liters (+36%).

The planning of the poultry branch in the various regions has been dictated by the following two trends:

1) Avoidance of too many sub-branches on one farm, especially breeding farms. This problem is more pronounced on the family farm, where the continued development and the very existence of the poultry branch call for cutting down the number of sub-branches and adapting the farm buildings to this purpose.

2) Giving first priority to the channeling of the additional quotas to the mountainous and the hilly regions as well as to the economically "weak" farms and to those that have no other alternatives; while taking into consideration the fact that this branch may be run at the same degree of efficiency in the various regions of the country. Hence, the relative advantage of the poultry branch in the regions that are problematic in their ecological suitability to certain crops. Accordingly, the greater part of the additional quantities of table eggs and broiler meat production quotas have been allocated to the hilly agricultural settlements. The additional quotas of hatching

eggs and turkeys' meat have been channeled to the agricultural settlements that are not lacking in technical know-how and organizational ability.

For socio-economic reasons, the past few years have witnessed a decrease in the number of Awassi flocks which are kept by the kibbutzim. This tendency came to an almost complete stop in 1965 owing to the improvements that had been introduced into this branch and to the rise in its profitability. During the five- year period under consideration it is expected that the number of ewes in the flocks kept by the kibbutzim will increase by 3,800 in regions where sheep can utilize inexpensive feed from both pasture and stubble fields (Jezreel Valley, the Negev, Lower-Galilee).

In the moshavim, ewes are milked in only part of the farms. Most of the milk flocks are concentrated in the regions of Beit-She'an and Agur, whereas the meat flocks are kept in Merom Hegalil, Agur, Lakhish Area and the Negev. It is expected that in the year 1970/71 the number of milk ewes will double while the number of Awassi flocks kept for meat will decrease.

The plan also presupposes an increase in the number of Merino ewes, from 7,400 heads in 1965 to 26,100 in 1970/71. The main increase is expected to expected to take place in the new moshavim of the Negev, the Lakhish Area, Agur and the Ta'anakh Region.

The regional advantage has been the decisive factor in considering the allocation of fruit plantations. According to this criterion, most of the additional apple plantations have been earmarked for the Huleh, Merom Hagalil and the Jezreel Valley regions which are known for their high yields suited for long storage. Pears will be planted in the regions of Acre, Jezreel Valley, Lakhish and the Negev, where the yield potential is high. The addittional appricots plantations have been earmarked for the Jerusalem Corridor and the southern region, where the climatic conditions are favorable to high yields and early ripening of the fruit. The additional avocado plantations have been mostly planned for the regions of Acre and Hedera which have water sources of suitable quality.

Wine grapes have been allocated mainly to the new moshavim in the Jezreel Valley, Merom Hagalil, the Jerusalem Corridor, the Lakhish Area, and the Arab villages in the region of Nazareth. In these regions wine grapes constitute a sole alternative, owing to the agro-climatic limitations and to the planting quotas of othe fruit which limit their expansion.

Almost no expansion is envisaged for the citrus branch (an addition of 12,000 dunams only), owing to the expected drop in prices, the decrease in the area of land suitable for citrus groves, and the lack of water. It is probable that the drop in the profitability of the citrus branch will result in the uprooting of groves in the farms that have an alternative use for the means of production employed, especially where the groves are situated at a great distance from the farm and are worked by a hired team which does not leave any net profit for the grove owner.

The extent of the tradeable field crops has been determined according to the water balances and the farmers' preferences, after the orchard and fodder requirements have been met. The area under forage crops has remained almost unchanged, despite the considerable increase in cattle herds and in the flocks of sheep and goats, owing to the changes that have taken place in feeding methods and to the increase in the yields of forage crops.

In ordinary seasons, vegetables have relative advantages in some of the regions where most of the agricultural settlements are newly-established, such as the Lakhish Area, the Negev, the Jerusalem Corridor, and also the Arab villages. To these regions will be directed a considerable part of the vegetable growing branch. The five-year plan also takes into consideration a sizable increase in the area under vegetables grown under plastic covers in the regions of Ra'nana, Hedera, Rehovot, Lakhish, the Negev, the Arava and Beit-She'an. That is especially true for the family farms which have a small area per farming unit, and which can thus utilize more profitably the labor force at their disposal and enhance their incomes from their land and water quotas. In the moshavim, the area allocated to vegetables grown under plastic covers will increase fourforld (up to 8,400

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dunams) and in the agricultural villages - twofold (up to 4,500 dunams). According to the regional plan, an increase of 16,000 dunams under vegetables, which are extensive in the requirement of manpower because of the high degree of mechanization, and which are earmarked for industrial processing, will be channeled to kibbutzim, moshavim and big farms in the regions of Acre, Rehovot, the Jerusalem Corridor, Lakhish and the Negev.

The area allocated to cotton growing will increase in the kibbutzim, moshavim shitufiim and on the big farms where the necessary technical know-how has been acquired for growing this crop. As it is, the moshavim have also begun to adopt the method of the joint cultivation of this crop. The area under cotton will be especially increased in the Huleh, Acre, Gilboa, the Jezreel Valley, Hedera, and Rehovot, where part of the crop will receive auxiliary irrigation in accordance with the limitations imposed by the irrigation water network, the maximum daily amount of the water to be used, and the high marginal value per m^3 of water as far as this crop is concerned.

As for groundnuts, the detailed regional five-year plan does not indicate the possibility of an increase in the area allocated to this crop. In the regions of Jezreel and Lakhish, a decrease is envisaged in the groundnuts growing areas as against an expected expansion in the Besor Area and in the Arab villages.

Sugar-been growing is also unprofitable, and it will be taken up mainly by the kibbutzim, where it is possible to use the by-products for livestock feeding, and by family farms that work on an extensive scale.

TABLE A-12

VALUE OF OUTPUT, GROSS SURPLUS, NET INCOME AND INVESTMENTS REQUIRED IN 1964/65 - 1970/71 (IN IL. MILLION)

Region	Output Value			Gross Surplus			Net Income			Investments in IL. million	
	in IL. million		Changes in %	in IL. million		Changes in %	in IL. million		Changes in %		
	64/65	70/71		64/65	70/71		64/65	70/71		64/65	70/71
Huleh	62.6	68.0	8.6	37.1	38.8	4.6	27.4	27.2	- 0.8	6.1	31.1
Merom Hagalil	21.0	33.8	61.0	9.8	15.6	59.2	6.0	9.4	56.6	5.7	30.6
Maaleh Hagalil	7.8	17.9	129.5	3.5	7.0	100.0	2.0	4.0	100.0	2.9	24.1
Nazareth	28.7	47.9	66.9	16.5	28.1	70.3	13.0	21.8	67.7	0.6	10.7
Acre	66.1	85.3	29.0	33.1	45.0	36.0	21.2	30.8	45.3	7.8	33.2
Kinorot Valley	34.2	42.2	23.4	18.0	22.6	25.5	12.2	15.3	25.4	3.5	20.3
Beit-Shaan Valley	28.5	38.5	35.0	13.6	19.3	41.9	8.3	12.5	50.6	3.1	21.5
Gilboa	19.2	24.2	26.0	8.2	11.0	34.1	5.2	7.2	38.5	2.1	11.0
Lower Galilee	23.3	33.0	41.6	9.2	14.5	57.6	5.8	9.3	60.3	4.5	18.5
Yezrael Valley	79.2	98.3	24.1	37.1	45.6	22.9	25.0	30.1	20.4	12.0	59.8
Hadera	157.0	192.7	22.7	76.0	98.4	29.5	44.2	58.5	32.3	17.6	78.3
Raanana	163.0	188.5	15.6	79.3	96.7	21.9	43.3	55.2	27.5	17.8	76.0
Rehovot	181.5	225.3	24.1	83.2	110.6	32.9	45.2	62.7	38.7	26.7	116.6
Jerusalem Corridor	46.2	68.1	47.4	17.8	26.8	50.5	9.5	16.0	68.4	8.2	51.7
Lackish	83.4	112.1	34.4	40.2	56.0	39.3	24.5	35.2	43.7	14.2	62.2
Negev	105.5	147.8	40.0	43.2	67.9	57.2	28.0	44.2	57.8	18.7	71.7
Arava	2.3	6.4	178.3	1.1	2.9	163.6	0.8	2.0	150.0	1.1	8.6
Not Known	14.9	14.7	- 1.4	9.6	9.5	- 1.0	5.9	5.8	- 1.7	-	-
Total	1124.4	1444.7	28.5	536.5	716.3	33.5	327.5	447.2	36.5	152.6	725.9
Thereof: recently established settlements	453.1	633.0	39.7	196.4	289.8	47.6	122.5	183.6	49.9	80.1	410.5

Thereof: According to types of Settlement

Kibbutzim and Moshavim Shitufiim	385.8	488.8	26.7	184.6	244.7	32.5	121.9	160.9	32.0	58.2	249.6
Moshavim	424.7	560.7	32.0	176.0	244.1	38.7	104.5	148.9	42.4	67.6	344.1
Villages and Private farms	204.8	234.7	14.6	115.4	136.6	18.4	60.4	74.3	23.0	17.8	71.6
Institutes and schools	22.2	26.8	20.7	11.5	14.6	27.0	6.9	9.3	34.7	3.8	12.6
New additional settlements	0.3	14.0	366.6	0.1	6.7	570.0	0.1	4.8	380.0	3.7	29.0
Arab villages	71.7	105.0	46.4	39.3	60.1	52.9	27.8	43.2	55.4	1.5	19.0
Not known	14.9	14.7	- 1.4	9.6	9.5	- 1.0	5.9	5.8	- 1.7	-	-
Total	1124.4	1444.7	28.5	536.5	716.3	33.5	327.5	447.2	36.5	152.6	725.9

Investments *)

The basic processes that characterize agriculture in Israel during the five-year plan are: unit integration and specialization, expanding the units of production, intensification, and switching to farming branches requiring large investment (plasticcovered areas, dairying, plantations). In order to speed these processes, large amounts of capital is required. The extent to which capital is available, as well as its price, determine the extent to which the agricultural plan will be realized. The total gross investments required for the agricultural settlements and farms - as derived from the five-year plan - amount to IL. 725 million (at 1964 prices), of which IL. 250 million will be earmarked for kibbutzim and moshavim shitufiin, IL. 344 million for moshavim, IL. 72 million for agricultural villages and private farms, IL. 29 million for new agricultural settlements, IL. 19 million for the Arab villages and some IL. 12 million for various institutions and schools.

The output value**) (not including intermediate products) amounted in 1965 to IL. 1,124 million (at 1964 prices) and it will increase in 1970/71 to IL. 1,449 million (at envisaged prices). The increase in output value amounts to IL. 325 million (which is an increase of about 29%), and it stems from the expansion of agricultural activities and the rise in the efficiency of production. Were it not for the envisaged drop in fruit prices, the increase in the output value would have been greater.

The increase in output value is characteristic of all the regions and of all forms of agricultural settlement, but the rate of increase is not the same for all of them. The maximum rates of increase are in the favored regions. This stems directly from the planning policy. The rate of increase of output value in Merom and Ma'aleh Hagalil is 88% on the average, in Nazareth - 69%, in Lowe Galilee, Beit-She'an and the Jerusalem Corridor - 40 - 48%, and in Lakhish - 35%; the average rate of increase being 29%, as mentioned previously. The rate of increase of net income exceeds the rate of increase in output value owing to the envisaged increase in yields and to a greater efficiency in using resources.

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*) The differences in the total gross investment envisaged for the period covered by the plan, between the comprehensive plan and the detailed regional plan stem from the differences in the methods of calculation used in the preparation of the two plans.

**) Output value (and consequently net income) in the detailed regional plan are calculated on the basis of 1964 prices, whereas in the comprehensive plan the production value was calculated according to 1965 prices. Hence the main differences in the totals.

The net income *) (at 1964 prices) is estimated to have been IL. 327 million in 1965/66 and it is expected to amount to IL. 447 million in 1970/71. The increase indicates a greater net income for the farmer as a result of implementing the plan, and it will amount to IL. 120 million. In this case too, there will be a recurrence of the phenomenon of considerable growth rates in the regions of preference: in Merom Hagalil and Ma'aleh Hagalil - 71%, in Beit She'an - 50%, in Lower Galilee, Nazareth and the Jerusalem Corridor - 65 - 69%, in the Negev - 58%. The increase in incomes will also be greater in the newly-established settlements and in the moshavim in comparison with the old established settlements and the kibbutzim and moshavim shitufiim.

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11. The Salient Points of the Rural-Regional Development Plan for the Years 1966/67 - 1970/71 **)

1) The principal aims of developing the regional services and enterprises are the following:

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*) Output value (and consequently net income) in the detailed regional plan are calculated on the basis of 1964 prices, whereas in the comprehensive plan the production value was calculated according to 1965 prices. Hence the main differences in the totals.

**) This section is a condensation of the "Five-Year Plan for the Development of Agriculture for the Years 1966/67 - 1970/71, Part C, "The Rural-Regional Development Plan."

a) To raise the level of individual and public services by promoting them jointly for a number of villages.

b) To facilitate the application of technological developments to agricultural production, a process that calls for a scope of production, equipment, know-how and investments far beyond the potentiality of the single village.

c) To increase the farmers' incomes by centralizing the handling of agricultural produce (this includes sorting, packing, storage, etc.), as well as the processing of this produce in the rural region and under the ownership of the farmers themselves.

d) To develop additional sources of employment in the rural region by combining agriculture with industry and services.

2) The plan comprises four parts:

a) The rural population and the supply-demand relationship of man-power in the rural region.

b) The exising capacity of production and the need for additional production capacity, according to types of regional enterprises.

c) A development plan for regional enterprises, detailed according to regions and frameworks of cooperation.

d) A developemtn plan for private and public services in the rural centers of the moshavim.

For technical limitations, this plan is concerned with the Jewish settlements alone.

a) The Rural Population and the Supply-Demand relationship of man-power in the Rural Region

The forecast for the rural population for the end of 1970 has been based on the population census of 1961 and on the data provided by the Central Bureau of Statistics for the end of 1964. This forecast does not take into consideration the internal migration of the population - from the rural to the urban regions and vice versa - with the exception of newly-established settlements and the process of settling part of the rural centers (some 2500 units).

The rural population has been taken to include the settlers who live in agricultural settlements that have fewer than 2,000 inhabitants, with the exception of those who live in development townships or in the neighborhood of urban centers. In addition, the rural population includes the inhabitants of settlements having more than 2,000 inhabitants, where more than one third of the employed persons are engaged in agricultural work.

In the plan, this forecast is set forth in detail according to regions. The plan also includes a list of the rural settlements, according to the form of settlement, regional councils and the frameworks of regional cooperation.

Based on the population breakdown according to sex and age, the supply of the labor-force has been calculated for every region. For the purpose of calculating the available manpower, the demand for manpower in every region was estimated according to the various kinds of employment. This normative method of calculation provides an estimate of the need for developing non-agricultural enterprises in the rural regions on the one hand - as a contributing factor to the prevention of population migration from the village to the town - and an estimate of the demand for additional manpower in the rural region on the other. This forecast does not take into consideration employment in the construction of the enterprises themselves and the employment of hired labor from the urban settlements of the rural region.

b) The Existing Capacity of Production and the Need for Additional Production Capacity, According to Types of Regional Enterprises

The comprehensive and detailed Five-Year Plan for Agricultural Production served as the basis for estimating the need for the various Agricultural enterprises in every farming branch and in every region.

A survey of the existing regional enterprises was carried out jointly by the regional offices of the Ministry of Agriculture and the districts of the Agricultural Settlement Department of the Jewish Agency. This survey served as a basis for estimating the existing production capacity of the various types of enterprises in each and every region.

The criteria for calculating the need for production capacity in the various types of enterprises were determined in consultation with the experts of the various branches of production boards, professional organisations & government departments. The investment sums required for implementing the development plan were then estimated, after an assessment had been made of the development required in every branch and in every region.

It was assumed in this plan that every increment of production capacity, in every branch and in every region, must be made within the framework of regional cooperation.

c) A Development Plan for Regional Enterprises, Detailed According to Regions and Frameworks of Cooperation

In this part of the plan are enumerated all the regional enterprises of each region, according to the various cooperation frameworks, the plans for expanding the enterprises, the investment amounts required, and the envisaged employment in these plants.

d) A Development Plan for Private and Public Services in the Rural Centers of the Moshavim

Experience has shown that the single moshav is too small for running certain services at a satisfactory level. The last decade has witnesse the development - at the initiative of the land settling agencies - of rural centers which provide services for a number of moshavim. In thes centers were developed all the services required by a large population and which can be promoted jointly for a number of villages. Such centers are usually well populated. Some of the workers engaged in these services live at the center, which, together with the agricultural settlements connected with it, constitutes one complex and expanded community.

A detailed plan for the development of these centers was drawn up in cooperation with the districts and with the Division for the Development of Rural Centers of the Agricultural Settlement Department of the Jewish Agency. An estimate was also made of the investments required for this purpose.

3) Summary of the Plan

a) The Number of Agricultural Settlements According to Regions and Forms of Settlement at the end of 1965 and in 1970/71

There are in Israel 85 urban settlements and 771 rural settlements. During the period covered by the plan it is suggested to set up 39 new rural settlements according to the following breakdown:

TABLE A-13 NUMBER OF AGRICULTURAL SETTLEMENTS ACCORDING TO REGION AND TO TYPE OF SETTLEMENT AT THE END OF 1965 AND IN 1970/71

Type of agricultural settlement.	No. of existing agricultural settlements at the end of 1965	No. of proposed agricultural settlements till 1970/71	Total in 1970/71
Rural centers	49	14	63
Old-established kibbutzim	118	-	118
Newly established kibbutzim	105	8*)	113
Old-established moshavim	75	-	75
Newly established moshavim	276	10*)	286
Newly established settlements	4**)	2**)	6
Old established moshavim shitufiim	6	-	6
Newly established moshavim shitufiim	17	-	17
Big villages	5	-	5
Small villages	16	1	17
Villages not engaged in agricultural production	18	1	19
Experiment stations	10	-	10
State-owned farms	6	-	6
Public-owned farms	16	1	17
Agricultural schools	33	1	34
Public institutions	13	1	14
Government institutions	4	-	4
Total	771	39	810

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*) Including existing newly established settlements which will be turned into permanent agricultural settlements.

**) Does not include existing newly established settlements which will be turned into permanent agricultural settlements.

b) List of the Rural Centers According to Their Type at the End of 1965 and in 1970/71

The breakdown of the existing 49 rural centers is as follows:

8 inter-regional centers,
17 regional centers,
24 settlement-group center.

It is suggested in the plan to set up 2 inter-regional, 5 regional and 7 settlement-group centers.

Out of the 49 existing centers, 16 are already populated and it is suggested to populate 8 additional ones.

Of the 14 new centers it is suggested to populate 7.

c) List of the New Rural Settlements and the Number of New Units up to 1970/71

The breakdown of the proposed 39 agricultural settlements is as follows:

TABLE A-14 NEW RURAL SETTLEMENTS AND THE NUMBER OF NEW FARM UNITS BY 1970/71

Type of Agricultural settlement	No. of new settlements	No. of new farm units
1) Agricultural settlements	15	880
2) Villages not engaged in agricultural production	3	130
3) Turning new settlements into permanent ones	5	300
4) New settlements	2	-
5) Populated new centers	7	540
6) Unpopulated new centers	7	-
7) Populating existing centers which are now unpopulated	-	270
8) Additional populating of existing populated centers	-	420
Total	39	2540

d) The Rural Population at the End of 1964 and at the End of 1970, and the Supply-demand relationship of the man-power in the Rural Region, According to Regions, in 1970/71.

The Jewish rural population at the end of 1964 constituted 11.2% of the entire Jewish population. According to normative calculations, the supply of manpower in the rural region will in 1970/71 exceed demand by 10,000 workers, assuming that all the demand will be met by the rural population, and that all the farmers' children will stay in the rural region. If a way is found for developing other sources of employment for the demographic surplus in the rural region (rest homes, summer resorts and industry), the percentage of the rural population will in 1970/71 still be 11.2% of the entire Jewish population.

e) The Demand for Manpower in the Rural Region - Breakdown According to Sources of Employment and to Regions

The breakdown in % of the demand for manpower in the rural regions is as follows:

1) In agricultural production	67.3 %
2) In private and public services	9.3 %
3) In agricultural enterprises and services	12.4 %
4) In the non-agricultural enterprises existing at the end of 1964	11.0 %
Total	100.0 %

f) The Existing Production Capacity and a Plan for the Development of Regional Enterprises, According to Type of Enterprise, Including Investments and Employment in the Enterprises

There are 137 regional enterprises, and it is suggested that 47 new ones be set up. The investment required for the development plan amounts to about IL. 75 million. The regional plants will in 1970/71 provide about one million work days. The bulk of the investment will go into the construction of cold-storage houses (about IL. 20 million), jointly owned technical equipment and into garages (about IL. 20 million).

g) Development Plan for Regional Enterprises, According to Regions, Including Production Capacity, Investments and Employment.

The breakdown of the regional enterprises, investment in their development, and employment in them, according to regions, is as follows:

TABLE A-15 DEVELOPMENT PLAN FOR REGIONAL ENTERPRISES (ACCORDING TO REGION) DURING THE PERIOD 1966/67 - 1970/71

No.	Region	No. of enterprises Existing	No. of enterprises Additional	Investments in development (IL. thousand)	Total*) employment in 1970/71 (No. of work days)
1.	Upper Galilee	10	2	17,180	130,100
2.	Merom Hagalil	6	1	2,720	30,000
3.	Ma'aleh Hagalil	-	7	3,220	28,100
4.	Western Galilee	19	1	3,150	166,000
5.	Valley of Kinnerot	7	2	3,750	64,500
6.	Beit She'an	9	2	6,500	92,500
7.	Gilboa	5	-	900	23,600
8.	Lower Galilee	4	-	1,000	5,000
9.	Western Valley	14	1	7,370	107,500
10.	Emek Hefer and the Shomron	12	3	4,900	66,500
11.	Sharon	8	-	910	500
12.	Judean Hills, Jerusalem Corridor	2	5	3,830	72,000
13.	Plain of Derom Yehuda	12	4	3,900	141,800
14.	Lakhish	10	11	7,930	58,800
15.	Negev	20	8	5,330	79,900
	Total	137	47	72,590**)	1,066,800

*) Does not include employment in regional agricultural enterprises in urban centers.

**) Does not include investments in concentrated feeding-stuff producing plants, which have not been listed according to regions (IL. 2 million).

h) Development Plan for Private and Public Services at the Rural Centers of the Moshavim, According to Regions, Including Details of Subjects, Investments and Employment

The investment required for the development plan amounts to about IL. 45 million. About one half of this sum is required for building dwelling units.

The estimated number of persons employed at these centers is 1,800.

The breakdown of investments and of the number of persons employed, according to regions, is as follows:

TABLE A-16 DEVELOPMENT PLAN FOR PRIVATE AND PUBLIC SERVICES IN THE RURAL CENTERS OF THE MOSHAVIM IN 1966/67 - 1970/71

No.	Region	Investments for development (IL. thousand)	No. of persons employed
1.	Upper Galilee	509.4	37
2.	Merom Hagalil	2,545.3	58
3.	Ma'aleh Hagalil	9,298.0	104
4.	Valley of Kinnerot	2,241.7	42
5.	Valley of Beit She'an	789.8	27
6.	Lower Galilee	1,407.6	36
7.	Western Jezreel Valley	2,503.6	101
8.	Sharon	1,787.3	63
9.	Judean Hills, Jerusalem Corridor	3,414.3	163
10.	Plain of Derom Yehuda	7,651.9	302
11.	Lakhish	6,780.8	483
12.	Negev	6,666.2	374
	Total	45,595.9	1,790